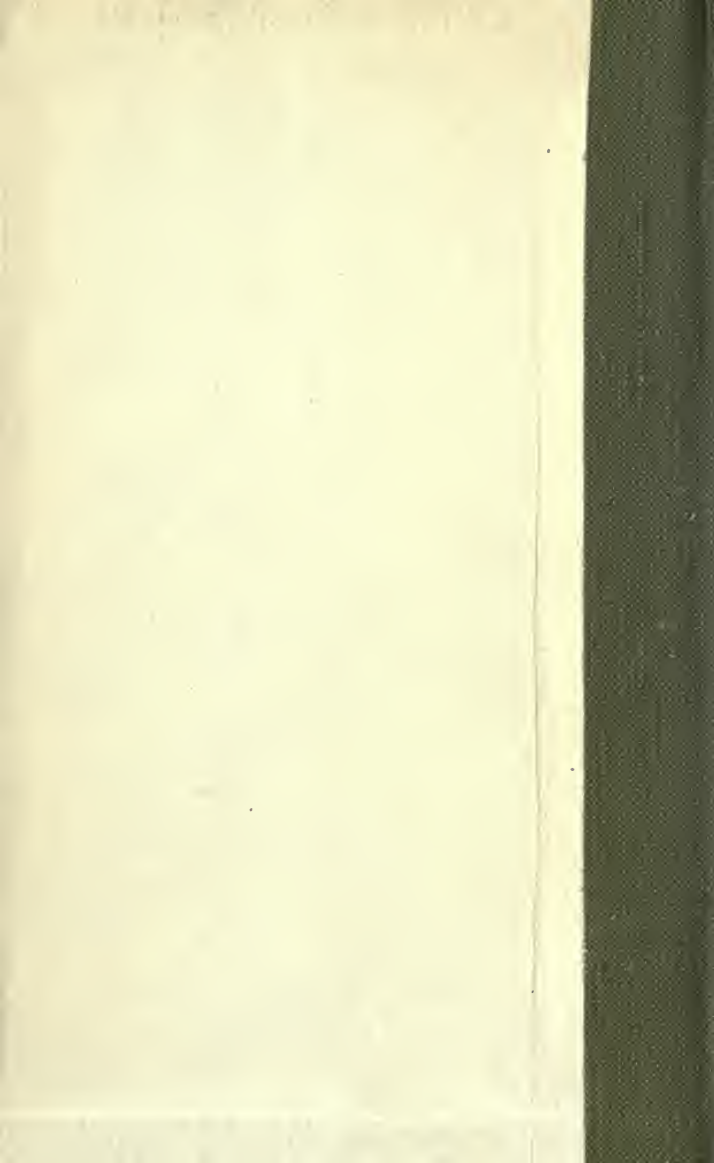


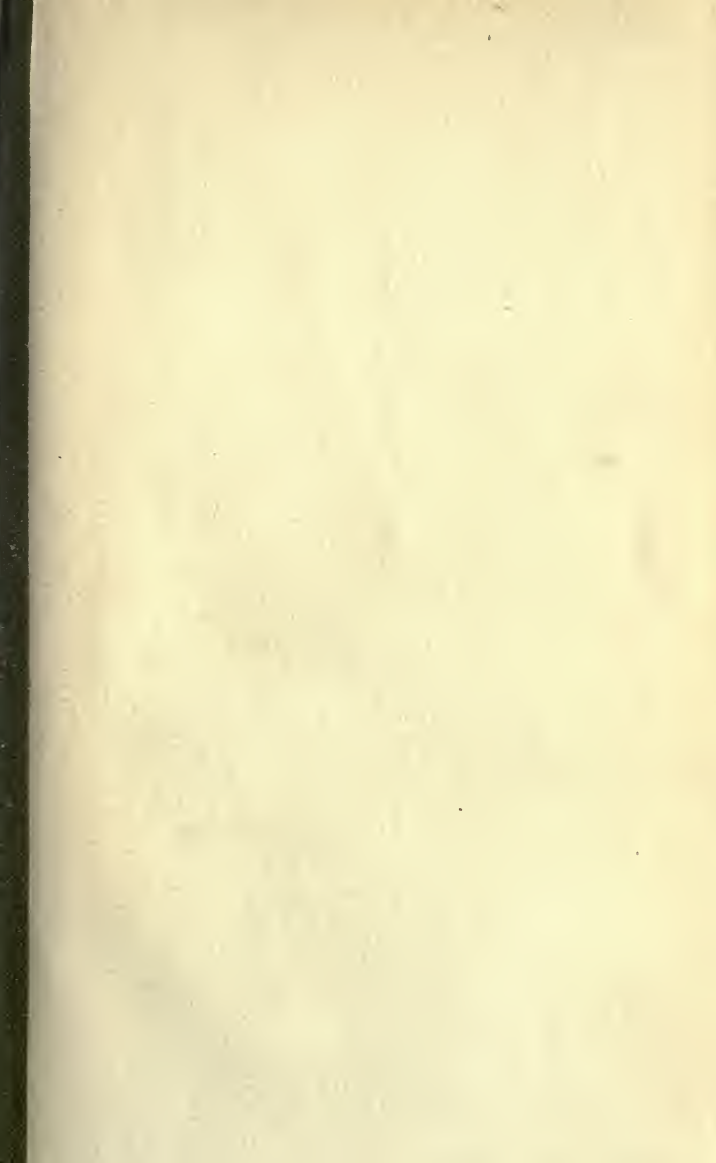
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NUMISMATIC NOTES AND MONOGRAPHS

No. 9



COMPUTING JETONS

By DAVID EUGENE SMITH, LL.D.

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THE AMERICAN NUMISMATIC SOCIETY
BROADWAY AT 156TH STREET
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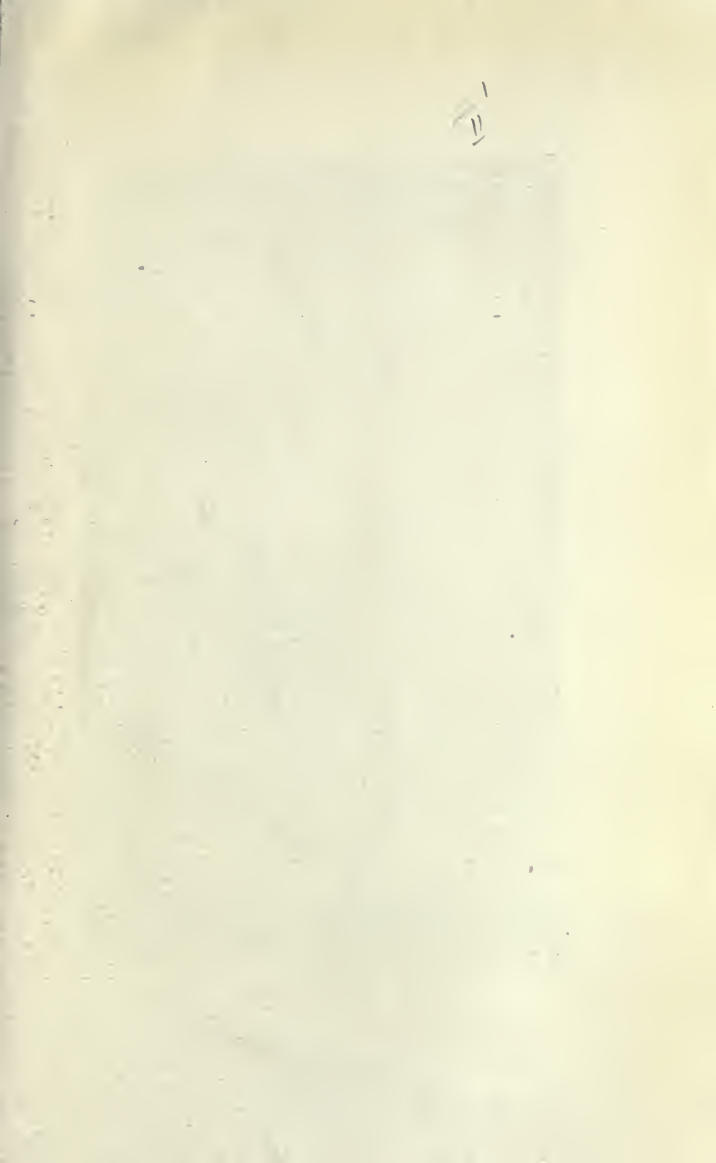
The American Numismatic Society. Exhibition of United States and Colonial Coins. 1914. vii, 134 pages, 40 plates. \$1.00.

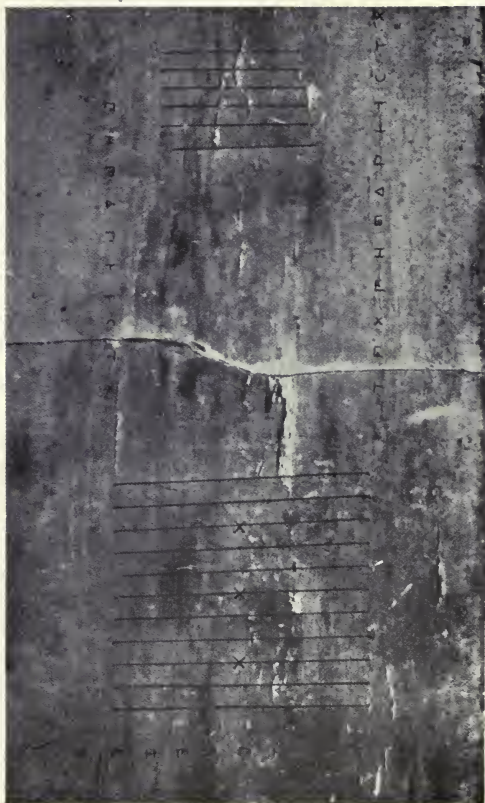
I

NUMISMATIC
NOTES & MONOGRAPHS

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NUMISMATIC NOTES AND MONOGRAPHS is devoted to essays and treatises on subjects relating to coins, paper money, medals and decorations, and is uniform with Hispanic Notes and Monographs published by the Hispanic Society of America, and with Indian Notes and Monographs issued by the Museum of the American Indian-Heyle Foundation.





The Salmis Abacus

Found on the Island of Salmis in 1846

COMPUTING JETONS

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PREFACE

This monograph is based upon an address delivered by the author before the American Numismatic Society, in New York City, on February 7, 1921. The purpose is set forth in the monograph itself, but the author wishes to take advantage of a prefatory page to express his appreciation of the kindness of the officers of the Society in asking him to prepare the address for publication. He also wishes to acknowledge the courtesy of George A. Plimpton, Esq., of New York City, in generously permitting the use of his large library of rare textbooks for the purpose of preparing most of the illustrations used in this work; and to express his thanks to L. Leland Locke, Esq., of Brooklyn,—himself a contributor to the history of notation and of mechanical computation, particularly in relation to the quipu,—for the kind assistance rendered by him in taking the photographs.

COMPUTING JETONS

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GENERAL PURPOSE OF THE ADDRESS

In accepting the invitation of the American Numismatic Society to speak upon the subject of Computing Jetons, I have naturally considered the possibility of offering something that might appeal to its members as not already familiar. Few works upon any subject relating to numismatics are so exhaustive in their special fields as the monumental and scholarly treatise of Professor Francis Pierrepont Barnard (*Casting-Counter and Counting-Board*, Oxford, 1916), and hence it may seem quite superfluous, and indeed presumptuous, to attempt to supplement such a storehouse of information.

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	<p>Professor Barnard, however, approached the subject primarily from the standpoint of a numismatist, a field in which he is an acknowledged expert, as witness the honor that has recently come to him in his appointment as curator of coins and medals in the Ashmolean Museum at Oxford, and so it has seemed to me that I might make at least a slight contribution by approaching it from the standpoint of a student of the history of mathematics. It would, in that case, be natural to consider primarily the need for, the use of, and the historical development of the jeton in performing mathematical calculations, and this is the pleasant task that I have set for myself in preparing this monograph.</p> <p>Although Professor Barnard has also considered this field, I hope to contribute something in the way of illustrative material, at least, and perhaps to make somewhat more prominent the early history of a device which, in one form or another, seems to have dominated practical calculation during a good part of the period of human industry.</p>
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NECESSITY FOR AIDS IN COMPUTATION

The numeral systems of the ancients were never perfected sufficiently to allow for ease in general computation. The Babylonian notation, adapted to a combination of the numerical scales of ten and sixty, and limited by the paucity of basal forms imposed by the cuneiform characters, was ill suited to calculation; the Egyptian and Roman systems were an improvement but they failed to meet the needs of computers when the operations extended beyond subtraction; the several Greek systems finally developed into something that was rather better than their predecessors, but they also failed when such an operation as division had to be performed with what we would call reasonable speed. The difficulty may easily be seen by considering two numbers (6469 and 2399) written in one form of Roman notation of the time of the Caesars:

VI ∞ CCCCLX VIII

II ∞ CCC LXXXXVIII

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	<p>For purposes of adding, these forms are simple enough. While they take longer to write than ours, the actual addition can be quite as readily performed as by us, and moreover it is evident that no addition table need be learned, the entire operation reducing to little more than counting. When we come to multiplication or division, however, the Roman notation was, like practically all others of ancient times, very cumbersome. Even as perfected, or at least as changed, in medieval times, the multiplying of $\overline{\text{c. lxiiiij. ccc. l. i}}$ by $\overline{\text{.vi. dc lxvi}}$ (to take two cases from the twelfth century), or of $\overline{\text{cId. Id. Ic}}$ by $\overline{\text{Dccxcj Uccxxxiiij q's Dl x U}}$ (to take a Dutch form and a Spanish form, both of the sixteenth century) would have discouraged almost any computer. Even the greatest mathematicians of antiquity, the Greeks, had serious difficulty in using their most highly developed numerals in the division of, for example, /ATMB by PE (that is, 1342 by 105).</p>
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There is another reason why the ancient systems were such as to demand some kind of mechanical devices to aid the computer. Even had our present convenient numerals been known, the ancients had no simple way of using them. We do our computation on paper, but rag paper was unknown before the first century, and our cheap paper is a very recent invention. Papyrus seems to have been generally unknown in Greece before the seventh century B. C., although it had long been used in Egypt; parchment was an invention of the fifth century B. C.; while tablets of clay or wax were quite unsuited to extensive numerical work. The situation was, therefore, a serious one for those who, in Babylonia, computed numerical tables for the astrologers and astronomers; and for the merchants and money changers of the Mediterranean countries who, after coinage appeared in the seventh century B.C. had need of more extensive calculations than their predecessors in the commercial field had required.

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	<p data-bbox="484 285 764 313" style="text-align: center;">THE DUST ABACUS</p> <p data-bbox="308 351 940 1359">To meet the needs imposed by these cumbersome systems of notation the world devised, from time to time and in different parts of the earth, various forms of an abacus. Originally the term seems to have been used to mean a board covered with a thin coat of dust (Semitic <i>abq</i>, dust). Upon this board it was possible to write with a stylus, and the figures could easily be erased. Such devices, occasionally referred to by early writers, could hardly have been of much service except in connection with such temporary work as the computation with small numbers. Indeed, among the several doubtful etymologies of the word that have been suggested is the one that the Greek <i>abax</i> came from <i>alpha</i> (the letter standing for 1), <i>beta</i> (the letter standing for 2), and <i>axia</i> (relating to value). The dust abacus may also have given the name to the <i>gobar</i> (dust) numerals, which were used by the Moslems in Spain. The instrument, therefore, served the same purpose as the</p>
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wax tablet of the Greeks and Romans (a device that remained in use in Europe until the eighteenth century), as the more modern slate, and as the paper pad of the present day. The blackboard found in our schools is a late descendant of this type of abacus, as is also the wooden tablet used in the native Arab schools at the present time.

EARLY FORMS OF THE LINE ABACUS

The dust abacus was a crude affair compared with its successor, the line abacus. This instrument had various forms. At first it seems to have been a ruled table similar to the specimen found in 1846 on the island of Salamis. Upon the ruled lines the computer placed counters (Greek $\psi\bar{\iota}\phi\omicron\iota$, pebbles),—the units on one line, the tens on the next, and so on. Such instruments are referred to by several early writers, and Herodotus, for example, compares the Greek and the Egyptian forms, saying that the inhabitants of the Nile valley “write their characters and reckon with pebbles, bringing

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	<p>the hand from right to left, while the Greeks go from left to right," these being the respective directions taken in the Egyptian and the late Greek writing.</p> <p>Sometimes the counters were placed loosely on the lines, and sometimes, though at a much later period, they were fastened to the table by being fixed in grooves or by being strung on wires or rods. Several apparently late Roman pieces showing the grooved abacus are extant, while the Chinese <i>swan pan</i> shows the counters strung like beads upon wires or rods.</p> <p style="text-align: center;">THE ROMAN COUNTERS</p> <p>There are numerous classical references to the abacus, and particularly to the loose counters from which the later jetons were derived. Horace, for example, speaks of the schoolboy with his bag and tablet hung upon his left arm, the tablet being some type of abacus, perhaps the one covered with wax. Juvenal mentions both the tablet and the counters, and Cicero and Lucilius refer to brass counters when they speak of the <i>aera</i>.</p>
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The common Roman name for these counters was *calculi* or *abaculi*. The word *calculus* is a diminutive of *calx*, meaning a piece of limestone and being the root from which we have our word "chalk." A *calculus* is, therefore, simply what we call a "marble" when referring to a small sphere like those which children use in playing games. From the fact that these *calculi* were used in numerical work we have the word *calcolare* (literally "to pebble," or "marble"), meaning to calculate or compute. The word *calculus*, used in this sense, was transmitted by the Romans to medieval Europe and was in common use until the sixteenth century. When it was abandoned as referring to a counter it was adopted as a convenient term to indicate the branch of higher analysis which is now generally known as "the calculus." It is still used in various languages, however, to refer to elementary work with numbers.

As to the actual *calculi* used by the Romans, we have no specimens that can be positively identified. Thousands of

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	<p>small disks have, however, come down to us, generally classified as gaming pieces, and there seems to be no doubt that these also served the purpose of counters. The Romans have left records of such games as the <i>Ludus latruncularum</i> and <i>Ludus duodecim scriptorum</i>, in which they employed pieces which they spoke of as <i>calculi</i>, so that the disks that were used in ancient games like checkers and backgammon were called by the same name as the computing pieces. Indeed, this same custom is found in the case of the jetons of modern times, particularly in the seventeenth and eighteenth centuries, when the computing pieces began to be used solely in gaming, a custom to which we owe our poker chips, just as we owe our billiard markers to a late form of the Roman abacus. It is, therefore, quite safe to say that the small disks so often found in Roman remains represent both computing and gaming jetons. Indeed, it is probable that the tradesman paid little attention to the size, shape, or material of the <i>calculi</i> which he used in his computations.</p>
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II

THE ABACUS IN THE ORIENT

The early Chinese, not only before the Christian era but for more than a thousand years after this era began, made use of counting rods. These were laid upon a computing table and were used in somewhat the same way that the jetons were used in Europe. The rods were commonly made of bamboo, although sometimes, as in the sixth century, iron pieces were used. The early literature shows that the wealthy class often employed ivory rods.

At least as early as the twelfth century, and we have no positive knowledge of the matter before that time, the Chinese computers replaced the "bamboo rods" by sliding beads, the new instrument being known as the *swan pan* (computing tray). Where they obtained their idea we do not know, but there is some reason for believing that it came from Central or Western Asia. At any rate they adopted a form that was quite like the late Roman abacus except that the beads were made to slide upon rods instead of in grooves.

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一
 萬 千 百 十 一 分 厘 毫 絲

									商	一 圖
≡		≡		⊥		⊥	⊥	⊥	實	
—	⊥	≡							方	
—		⊥	⊥						廣	
		=		=					隅	
									三	
									四	

Counting Rods

As shown in early Chinese works, being used in this case to represent numerical coefficients in algebra

This form has not changed materially since the earliest illustrations that have come down to us in books or manuscripts, and is still used by all Chinese computers at home and abroad. Unless they, in time, adopt some more modern form of a calculating machine, there seems to be no good reason for abandoning the *swan pan*, since it permits of more rapid calculation than is possible with pencil and paper,—at least in the most common numerical operations of commercial life.

In the field of algebra, where the coefficients that enter into an equation are usually relatively small, the rods continued to be used until European mathematics replaced the Oriental, largely owing to the influence of Jesuit scholars in the seventeenth and eighteenth centuries.

The Koreans received their mathematics from China and transmitted it to Japan. The computing rods (their *ka-tji-san*) were adopted, and they were transmitted to Japan in the form of *chikusaku* (bamboo rods), but they were later modified into rectangular pieces known as *sanchu* or

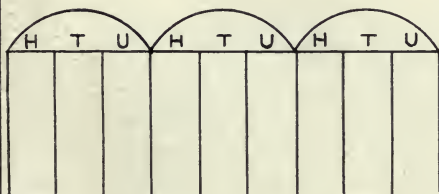
sangi. The rods remained in use in Korea until the nineteenth century, and in algebraic work they continued to be employed by Japanese scholars until the European mathematics replaced the ancient *wasan* (native mathematics).

In the sixteenth century, however, Japan adopted a form of the Chinese *swan pan*, under the name *soroban*, improving upon the shape and arrangement of counters, and this instrument is still in universal use by her computers.

In Central and Western Asia, perhaps in the late Middle Ages, a type of abacus developed, which the Turks now call the *coulba* and the Armenians the *choreb*. It passed thence to Russia where it is known as the *stchoty* and is still generally used. The form differs materially from the Roman and Oriental ones, but served the same purposes. Each line of this abacus consists of ten beads, these being strung on wires and being so colored as to allow the eye to recognize without difficulty the various groups of fives as they appear in the rows.

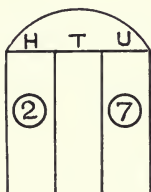
THE GERBERT ABACUS AND JETONS

From the standpoint of jetons, only two forms of the abacus, as it appeared in Western Europe, have any interest for us. One of these was called by the early writers the Pythagorean Table (*mensa Pythagorica*), a term also applied to one form of the multiplication table. The other was known as the arc abacus, or Pythagorean Arc (*arcus Pythagoreus*), but may very likely have been due to Gerbert (Pope Sylvester II, c. 1000), who is known to have used it. This arc abacus consisted of a table marked off in columns surmounted by arcs, thus:



The letters H, T, and U stand for hundreds, tens, and units.

Gerbert had an artisan make nine sets of counters, and upon each of the first was the figure 1, upon each of the second the figure 2, and so on, those of the last set having the figure 9. If he wished to represent the number 207, for example, he placed the counters as follows:



It will be seen that, had Gerbert known the zero, he would not have needed counters at all, for he would have written 207 on a wax tablet. Since the zero came to be known in Europe at about that time, Gerbert's form of the abacus and his peculiar jetons with numerals upon them were very short lived, and they made no impression upon the methods of mechanical calculation employed by his successors.

THE LATE EUROPEAN LINE ABACUS

We are quite ignorant as to the forms which the abacus assumed in various parts of Europe between the time of the Fall of Rome, in the fifth century, and the advent of the line abacus of the late Middle Ages. We only know that the earliest form that has come down to us in the medieval manuscripts and in the arithmetics of the first two centuries of printing is substantially as shown on pages 18-24.

The earliest printed illustration of the arrangement of counters on the table is the one given in the *Algorithmus Linealis* (Leipzig, c. 1488; the facsimile is from the edition of c. 1490). The work was published anonymously, but was probably written by Johann Widman, a mathematician of considerable prominence and then residing in Leipzig. The arrangement of the counters representing 1,759,876 is shown in the column at the right. The middle column shows the same number written in a different fashion for purposes of subtraction. The column at the left shows the number

In qua etiam certe ponitur littere et nomen line
arum spacioreq; ficationem exprimentes. quarum
virtus et numeralis significatio in his sequentibus
tangitur metris.

Y monos. v. quinos. x. denos. dupla vigenos

XL. duplatidem. triplat. lx. l quodq sola

Quinquaginta facit. sed nonaginta dat. xc.

C. dat centenos. quadringenta quoq; cd.

Q. quoq; quingenta si non fuerit sociata

Algorithmus Linealis

Probably by Johann Widman, c. 1488

jede zal durch die ziffer lerne schreiben vnd auß-
 sprechen. Siervil ich im anfang dis büchleins
 das selbig genugsam erklaret / wil ich anfangen
 von bedeutung der linien also. Die vnteriste li-
 ni bedeut eins / die ander ob jr zehē / die drit hun-
 dert / die vierd tausent / die fünfft zehentausent /
 also fort die negst ober sich alweg zehēmal sovil.
 Die feldung zwischen zweyē linien heist das spa-
 cium / gilt halb sovil als die negst ober lini / oder
 fünffmal sovil als die negst vnter lini / wienach-
 uolgende figur thut abweyssen.

Fünffhun:tau:	_____	500000
Hundert tau:	_____ _____	100000
Fünffzig tau:	_____ _____	50000
Zehen tau:	_____ _____	10000
Fünfft tau:	_____ x _____	5000
Tausent	_____ _____	1000
Fünffhundert	_____ _____	500
Hundert	_____ _____	100
Fünffzig	_____ _____	50
Zehen	_____ _____	10
Fünfft	_____ _____	5
Eins	_____ _____	1
Ein halbs	_____ _____	$\frac{1}{2}$

In aussprechung einer zal / heb oben an sprich
 das hundert sampt seinē obern spacio allein aus
 sonst nim alweg zwō linien sampt jrē obern spa-
 cien zusamen wo zu beiden orten zal pfennig li-
 gen. Auch / von mehr sicherheit wegen / sol das

Christoff Rudolff's Kunstliche rechnung mit
 der ziffer vnnnd mit den zalpfennige, 1526

From the edition of 1534

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	<p>1,666,666. A small cross was usually placed upon thousands' line, and one on millions' line, as here shown, the purpose being to aid the eye in reading the numbers.</p> <p>Although there were special modifications of the line abacus, the general type is the one on page 19. The illustration is from Christoff Rudolff's <i>Kunstliche rechnung mit der ziffer vnnd mit den zalpfenninge</i> (Vienna or Nürnberg, 1526; the facsimile is from the Nürnberg edition of 1534, fol. D. vj. v). Rudolff was one of the best German mathematicians of his time, and counter reckoning made very little appeal to him. Nevertheless, in writing an arithmetic for popular use, he was forced to include it. He gave only one illustration of the counting board, as here shown, but he explained the use of the device in performing the several elementary operations as they were reached in the text.</p> <p>An interesting variant of the table given by Rudolff is one here shown from the <i>Arithmetica</i> of a Polish teacher, Girjka G^orla z G^orrlssteyna, whose book appeared</p>
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První Traktát

to weysa potrebnj gest počtu wěcŭho/echŭ
dy od Czwrcy Linye / genj gest Rŭjžkens
znamenaná / znowa počŭtay geden Tisŭc/
patu Lŭnu Deset Tisŭc / Šestau Lŭnu
Sto tisŭc / Sedmau Lŭnu Tisŭc Tisŭcŭw.

Še pak Spacium neš pole mezy Linami
wždy polowicy tolik platŭ jako Lŭna / to
mu sŭčlegŭ z cěto Tabule porozumŭšs.

Wyšwětlenŭ Lŭn a Spa-
cium.

1-0-0-0-0-0-0	X	●	X	Tisŭc Tisŭcŭ	●
5 0 0 0 0 0		●		pět Set Tisŭc	
1-0-0-0-0-0		●		Sto Tisŭc	●
5 0 0 0 0		●		paděsat Tisŭc	
1-0-0-0-0		●		Deset Tisŭc	●
5 0 0 0		●		pět Tisŭc	
1-0-0-0	X	●	X	Tisŭc	●
5 0 0		●		pět Set	
1-0-0		●		Sto	●
5 0		●		paděsat	
1-0		●		Deset	●
5		●		pět	
1		●		Sedna	●
0		●		půl	

při tom aby znal / na kteraukoli Linu
přest se položí / že ta toliko gedna znamená /
Spacium podnŭ půl / nad nŭ pět / Druhá
Deset

at Czerny in 1577. This particular work has been selected partly because of its rarity, and partly because the form of the explanatory diagram differs somewhat from the more common type found in other parts of Europe.

A further illustration of the method of explaining the table may be seen from the line abacus shown in Spänlin's *Arithmetica* (Nürnberg, 1566, page 8).

When arranged for monetary computation, the table was commonly divided into columns, each being called a *Banckir* or a *Cambien*. In each *Banckir* there were placed counters to represent respectively pounds, shillings, and pence, or similar denominations according to usage of the country. The illustration on page 24 is from *Das new Rechēpüchlein* of Jakob Köbel (Oppenheim, 1514, but from the 1518 edition, fol. viii, r). The page has a further interest in the fact that both Roman and Hindu-Arabic numerals are shown, although in general Köbel preferred the former as being the ones more commonly used in his day.

Spaciū/ vnter seirer lini/ halb souil als die
selb linien/ wie hie im werck bereit gesehen.

Erst Cambi.

Anter Cambi.

x	tausent		
m	tausent	×	fünff tausent
c	hundert		fünff hundert
x	zehen		fünffzig
i	eins		fünff

ein halbs.

Auß disem/ wie gesagt/ volgt/ so es sich be-
geb/ dß zwen zalpfeiling in eim spaciū leag/
daß dieselben auffgehbt/ vnd einer darfür
auff die nechst lini hinauff gelegt werde/ der
gleichen so 5 zalpfeiling auff einer liniē/ die
selben sollē auch auffgehbt/ vñ einer darfür
hinauff in das nechst spaciū gelegt werden:
wie aber diß alles zumachē/ hastu in dē spe-
cies nechst volgend gnugsam zuuermerckē.

Additio.

Item/ Einer gibt auß zu Nördlingē 74 R
16 fl. p. kass/ meh 35 R. 12 fl. pro schmalk/
meh 29 R 10 fl. p. federn/ geht vnkostē darauf

Rechenbanck.

Die Erst Banck für oder Cambien	Die Zweit Ban- ck für oder Cambien	Die Dritt Bäck- er oder Canmbien
Gulden	Alt	S

Der Zweit Underscheyt ist vñ

Bereitig 8 Linie vñ Rechēfening so daruf gelegt sein.

Ear ist / das die underst linig / Eins bereut.

Z Die zweit / Zehē / **D** Die drit / Hundert / **D** Die

Fierd / Tausant / **F** Die funfft / Zehē Tausant /

S Die Sechst / Hundert Tausant / **S** Die Sybent / Taus-

sant Tausant 2 ē. Vnd also auff vnd auff zū zelē / So vil

der Linien gemacht werden / Bereut ein yede Linig Zeh-

hen mal als vil als die nechst Linig vnd ir. Des zū sichre-

licher anschawung nūm diß Exempel.

Tausant mal Tausant — **M**⁹⁷ — ● — 1000000 —

Hundert Tausant — **C**⁹⁷ — ● — 100000 —

Zehen Tausant — **X**⁹⁷ — ● — 10000 —

Tausant — **M** — ● — 1000 —

Hundert — **C** — ● — 100 —

Zehen — **X** — ● — 10 —

Eyns — **I** — ● — 1 —

Jakob Köbel, *Das new Rechēpüchlein*, 1514

From the edition of 1518

Arithmetics that related to the use of counters on the line abacus were called by such names as *Algorismus linealis*, *Algorithmus linealis*, and *Rechenbüchlein auff der Linien* (Albert, 1534). The word *algorismus* referred to arithmetics that did not use counters. It is a medieval Latin form of the Arabic al-Khowarizmi, that is, "the man from Khwarezm," the country about the modern Khiva. This man was Mohammed ibn Musa al-Khowarizmi,— "Mohammed the son of Moses, the Khwarezmite," the first of the Arab writers, under the Caliphs at Bagdad, to prepare a noteworthy arithmetic based upon the Hindu-Arabic numerals. There was, therefore, no propriety in speaking of a "line *algorismus*," since algorism was quite the opposite of reckoning with counters on the line abacus. The original meaning of the term was lost in the late Middle Ages, however, and the word *algorismus* was applied to both types of arithmetic. Some of the textbooks, such as the popular German one by Adam Riese (1522), taught both counter and written

reckoning, and bore such names as the one which this famous Rechenmeister gave to his second work, *Rechnung auff der Linien und Federn* (Computing on the lines and with the pen). Similarly, Jodocus Clichtoveus, a native of Nieuport, in Flanders, published in Paris (c. 1507) his *Ars supputādi tam per calculos q3 notas arithmeticas*, a work which represented about the last of the old counter reckoning in the higher class of Latin arithmetics published in France.

A boy (for the girl rarely learned anything about computing) who knew the line abacus was said to "know the lines." So Albert, who wrote in 1534, says: "Die Linien zu erkennen, ist zu mercken, das die underste Linien (welche die erste genent wird) bedeut uns, die ander hinauff zehen, die dritte hundert," and so on. When he represented a number by means of counters on the line, he was said to "lay" the sum, as when the same writer says, "Leg zum ersten die fl.," an expression that may be connected with the present one of laying a wager. He was

often admonished to "lay and seize" carefully, as in the familiar old German distich,

"Schreib recht | leg recht | greiff recht | sprich recht |
So koempt allzeit dein Facit recht,"

in which the term *facit* had been brought over from the Latin schools.

The intervals between the lines (*lineae*) were called "spaces" (*spatia* or *spacia*). In performing the operations, however, and in representing different monetary units like pounds, shillings, and pence, it was convenient to divide the abacus vertically, as already stated. It was because these divisions were used particularly by the money changers that they were known to the German merchants not only as *Banckir* but as *Cambien*, or *Cambiere*, from the Italian *cambia* (exchange),—one of many illustrations of the indebtedness of northern merchants to their fellow tradesmen and bankers in the South. The *Cambien* were also called "fields" (*Feldungen*).

The use of such a term as *Cambien* suggests the desirability of beginning the study of the line abacus in Italy. This, however,

is not a satisfactory plan, for the Italians were, owing partly to geographical reasons, the first of the leading European nations to adopt, for practical mercantile purposes, the Hindu-Arabic numerals, and hence they had generally abandoned the line abacus as early as the twelfth century. Indeed, when Leonardo Fibonacci wrote his great treatise on arithmetic, in the year 1202, he felt justified in calling it the *Liber Abaci* although the abacus is not described anywhere in the work, showing that the term had already come to mean simply arithmetic. We have no treatise extant that gives us any clear information as to how the earlier Italians of the Middle Ages computed with the counters. By the opening of the Renaissance the art was a lost one. The Venetian patrician, Ermolao Barbaro, who died in 1495, said that, in his time, such devices were used only among the barbarians, having been so long since forgotten in Italy as to need explanation,—
“Calculos sive abaculos . . . eos esse intelligo . . . qui mos hodie apud barbaros fere omnes servatur.”

By way of contrast with the situation in Italy, Heilbronner, in his *Historia Matheos Universae* (Leipzig, 1742) says that, even as late as about the middle of the eighteenth century, counters were used by merchants in Germany and even in France,—“in pluribus Germaniae atque Galliae provinciis a mercatoribus,”—defining the art of computing on the line in these words: “arithmetica calculatoria sive linearis est Scientia numerandi per calculos vel nummos metallicos.”

The method of using the line abacus varied considerably. In rare cases, only the lines were used, each line counting as tens of the line just preceding, a method having a counterpart in the Russian *stchoty* of to-day. In others, only the spaces were used, the plan being similar to the one just mentioned. Specimens of this type of abacus are to be seen in the National Museum at Munich and in the Historical Museum at Basel. In this form the spaces generally represented monetary values, such as farthings, pence, shillings, pounds, 10 pounds, 100 pounds, and 1000 pounds.

NAMES FOR COUNTERS OR JETONS

Since the counter was cast, or thrown, upon the computing board, the name applied to it was often connected with the word "cast" or "throw." The Medieval Latin writers followed those of classical times in calling counters by such names as *calculi* and *abaculi*, but later computers also recognized the notion of casting. On this account they gave to the counters the name *projectiles* (*pro-*, ahead, + *jacere*, to cast). In translating this term the French dropped the prefix, leaving only *jectiles*, which they translated as *jetons*, with such variations as *jettons*, *gects*, *gectz*, *getoers*, *getoirs*, *jectoirs*, and *gietons*. Referring to the casting of the counter, in connection with which we still hear occasionally the expression to "cast up the account," the older French jetons frequently bore such inscriptions as "Gectez, Entendez au Compte," and "Jettez bien, que vous ne perdre Rien." Similarly the Spanish computers spoke of the *giton*, but they early abandoned the use of the abacus.

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The Netherland pieces were called *Werp-geld*, that is, "cast money" or "thrown money. They were also known by the name of *Leggelt*, that is, "laid money," as in pieces bearing the legend "*Leggelt van de Munters van Holland*."

In England the common name for the computing disk was "counter," a word which came down from the Latin *computare* through such French forms as *conteor* and *compteur*, appearing in Middle English as *countere*, and *contour*. Thus we are told, in a work of the early part of the fourteenth century, to "sitte doun and take countures rounde . . . And for vche a synne lay thou doun on Til thou thi synnes haue sought vp and founde," a passage that suggests an early use of the rosary, a symbol found in one form or another in the ceremonies of various religions. Indeed, the whole subject of bead counting or fingering, not merely among Christians but also among Buddhists and Moham-medans, is, like knot tying, closely connected with the abacus, and each has an extended and interesting history.

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	<p>In an English work of 1496, mention is made of "A nest of cowntoures to the King," and in the laws of Henry VIII (1540) there is the expression "for euey nest of compters," so that the use of "nest" to indicate the receptacle of the counters was for a long time common in England. Such a nest may very likely be referred to by Barclay (1570) when he speaks of "The kitchin clarke . . . Jangling his counters."</p> <p>When Robert Recorde, the first of the noteworthy writers upon mathematics whose works appeared in the English language, wrote his well-known <i>Ground of Artes</i> (c. 1542), counter reckoning had begun to occupy a subordinate place in the arithmetical training of the schoolboy. Not until the second part of his book, therefore, does Recorde say, "Nowe that you haue learned the common kyndes of Arithmetike with the penne, you shall see the same arte in counters." A century later, in an edition of this same popular work, a commentator speaks of ignorant people as "any that can but cast with Counters," reminding us of Shakespeare's</p>
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contemptuous reference to a shopkeeper as being merely a "counter caster."

From the use of the word "counter" in the above sense there came its use to designate an arithmetician. An example of this is found in a sentence of Hoccleve's (1420): "In my purs so grete sommes be, That there nys counter in all cristenste Whiche that kan at ony nombre sette."

The word also came to mean the abacus itself, as when Chaucer, referring to al-Khowarizmi as Argus, says:

"Thogh Argus the noble covnter
Sete to rekene in hys counter."

From this custom came the use of the word to mean the table over which goods were sold in a shop. The expressions "counting house" and "counting room" are, of course, of similar origin.

By reason of the resemblance of the counter to the common coins it was often called by such names as *nummus* and *denarius projectilis*, somewhat as we, in America, speak of a cent as a "penny," although the two are not the same in value.

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	<p data-bbox="495 254 751 282">THE EXCHEQUER</p> <p data-bbox="304 310 940 1191">Although the Court of the Exchequer, or the <i>Chambre de l'échiquier</i>, would hardly seem to be connected with the jeton, the relation is an intimate one. The best source of our knowledge of this relationship is the <i>Dialogus de Scaccario</i> of one Fitz-Neal, who wrote in 1178. His work is written in the form of a catechism, the questions being proposed by a "disciple" and the answers being given by the "master." It is written in Latin and the word <i>scaccarium</i> is used for exchequer, from the old French <i>eschequier</i>, and the Middle English <i>escheker</i>. Substantially the same word was used in Italy in the fifteenth century to designate a plan of multiplication in which the figures were arranged as on a checkerboard. This gave rise to the "<i>multiplicare per scacchiero</i>" in the early years of the Renaissance period.</p> <p data-bbox="304 1202 940 1323">In answer to a question from the disciple as to the nature of the exchequer, the master replies:</p>
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"The exchequer is a quadrangular surface about ten feet in length and five in breadth, placed before those who sit around it in the manner of a table, and all around it there is an edge about the height of one's four fingers, lest anything placed upon it should fall off. There is placed over the top of the exchequer, moreover, a cloth bought at the Easter term, not an ordinary one but a black one marked with stripes being distant from each other the space of a foot or the breadth of a hand. In the spaces moreover are counters placed according to their values. . . . Although, moreover, such a surface is called exchequer, nevertheless this name is so changed about that the court itself, which sits when the exchequer does, is called exchequer. . . . No truer reason occurs to me at present than that it has a shape similar to that of a chessboard. . . . The calculator sits in the middle of the side, that he may be visible to all, and that his busy hand may have free course."

The further description shows that, while the table was not the ordinary line abacus

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	<p>already described, the method of computing was essentially the one commonly used with counters. The court itself was therefore connected with the royal treasury and later with various financial matters of the realm. Indeed, just before Fitz-Neal wrote there appeared a record of "John the Marshal" being engaged "at the quadrangular table which, from its counters (<i>calculi</i>) of two colors, is commonly called the exchequer (<i>scaccarium</i>), but which is rather the King's table for white money (<i>nummis albicoloribus</i>), where also are held the King's pleas of the Crown." In this connection it is interesting to recall the fact that the checkered board is still quartered the arms of the Earl Marshal of England.</p> <p>It may be mentioned, although any discussion of the subject at this time would carry us too far afield, that the subject of counters is also connected with the tally stick, with finger reckoning, and even with the modern calculating machine, each of which devices has an extended and interesting history.</p>
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METHOD OF COMPUTING WITH JETONS

Jetons were used for all the elementary numerical processes. These generally included notation, addition, subtraction, doubling, multiplication, halving, division, and roots. Some books had special treatments for the Rule of Three and progressions. Doubling and halving were ancient processes, going back to early Egyptian times and intended primarily to assist in multiplication, division, and the treatment of fractions.

It will suffice to show the general nature of the use of the counters if we consider a few illustrations from the early printed books and manuscripts on arithmetic. For this purpose I have selected cases not individually considered (with one exception) in Professor Barnard's treatise.

As to notation, this has already been sufficiently explained. It will make the subject seem somewhat more real, however, if we consider a single illustration of the counting board laid for actual use. Several such illustrations are given on the

Ain Nerv geordnet Rech
en biechlin auf den linien
mit Rechen pfeningcn: Den
Jungen angenden zu heis
lichem gebrauch vnd hend
eln leychtlich zu lernen
mit figuren vnd exempeln
Volgethernach klär
lichen angezaigt.



Jakob Köbel, *Ain Nerv geordnet Rechen-*
biechlin, 1514

Illustrating the placing of the counters

titlepages of sixteenth-century arithmetics, but one of the clearest is found in Köbel's *Ain New geordnet Rechenbiechlin auf den linien mit Rechenpfeningen* (Augsburg, 1514) and is here shown in facsimile. One *Cambien* has the number 26 and the other has 485 (with possibly one or more counters on the lowest line).

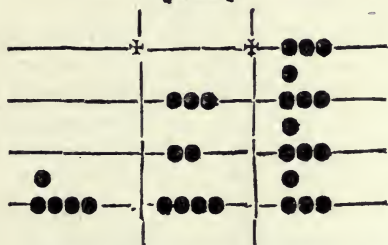
As to the further operations, my only excuse for venturing into a field which Professor Barnard has so thoroughly treated is that this elementary presentation may serve to popularize the subject and that I may place before those who are interested in computation certain facsimiles that are not to be found in his treatise. Professor Barnard has considered chiefly the works of Gregorius Reisch (1503), Nicholas von Cusa (1514), Köbel (1514), Sileceus (1526), Robert Recorde (c. 1542), Trenchant (1566), Perez de Moya (1573), John Awdeley (the printer, 1574, the author being unknown), and François Legendre (1753, not the great Legendre), besides the anonymous *Li Liure de Getz* (c. 1510). These authors he has

considered more fully than could well be attempted in the space at my disposal. Since some of the works represent the best sources, I am compelled to refer to them, however; but in the main I have given illustrations from other sources in order to supplement his treatment in certain particular features.

The illustration from Caspar Schleupner's *Rechenbüchlein Auff der Linien* (Leipzig, 1598) shows how the table was arranged for the reduction of Thalers to Groschen and Hellers. The problem is to reduce 9 Thalers to Groschen and then to Hellers, 36 Groschen being equal to a Thaler, and 108 Hellers being equal to a Groschen. The left-hand *Banckir* denotes 9 Thalers, the result of the reduction to Groschen (324) appears in the next column, and the result of the reduction to Hellers appears at the right.

Schleupner was one of the last of the Nürnberg Rechenmeister to give serious attention to counter-reckoning. The work has few equals in the way of a simple presentation of the subject.

Nun folgen beyder Münz nach der
 Thaler vnd groschen Resolution/zt.
 dagegen widerumb der heller vnd
 groschen/zt. Reduction auch
 hernach.



Als hieoben/ so du obgesagte figur
 von formen an / bey den 9. ft gegen den
 groschen vnd hellern ansiehst/ so hastu das
 Resoluirn solcher grossen Münze in klei-
 nere/das die 9. taler 3 24. G/ vnd solche
 3 24. G 3 8 8 8. S machen / so du aber
 gedachte figur von den hellern an/ zu rück
 ansiehst / so hastu dagegen das Reducirn
 solcher kleinen münze in grössere/das das
 gegen durch die Reduction/ die 3 8 8 8. S
 3 24. G vnd die 3 24. G die 9. taler ma-
 chen. Sohn.

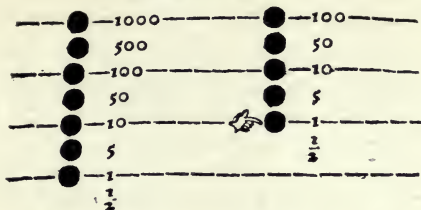
Caspar Schleupner, *Rechenbüchlein Auff der
 Linien*, 1598

Illustrating reduction of monetary units

The fundamental operations in arithmetic which we commonly limit to addition, subtraction, multiplication, and division, were subject to no such narrow limitation in the medieval and renaissance periods. As already stated, numeration, doubling (duplation), halving (mediation), roots, and certain other processes were often included. To illustrate the process of doubling, for example, 13 times 47 was often found by taking 2 times 2 times 2 times 47, adding 2 times 2 times 47, and then adding 47, thus reducing the process to doubling and adding. In a somewhat similar way, the reverse operation can be reduced to subtraction and halving.

The illustration here given, from Adam Riese's *Rechenbuch Vff Linien vnnd Ziphren* (Erfurt, 1522, but from the Frankfort edition of 1565 fol. 6, v), shows the reckoning board and a slight explanation of the methods of doubling, with three examples in our common numerals. Although Riese was one of the greatest Rechenmeisters of Germany, his explanations of the process with counters were not so satisfactory as

Rechenbüchlin



Oben soltu anheben / ligt nun ein dz im spacio / so greiff auff die nechste Linien darüber. Sprich / halb 2 macht 1 / das leg. Darnach greiff herab auff die nechste Linien / ligt dz da / so duplir sie / Was kompt / leg nider / Ligt dann aber ein dz in dem spacio / so thū wie ge sagt. Desgleichen mit den dz auff den linien / so lang biß nichts mehr zu duplirn vorhanden / als folgende Exempel außweisen.

8967 7583 5968	17934 25166 11936
----------------------	-------------------------

Proba.

Das probir also / halbir die zal / die kommen ist auß dem duplirn / so kompt die erste außgelegt zal wider.

Medirn.

Zeyt

Adam Riese, *Rechenbuch Vff Linien vnnd Ziphren*, 1522

From the edition of 1565. Illustrating doubling

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	<p>those of various other writers, as may be inferred from the case shown on page 43.</p> <p>The illustration of halving, here given, is from Johann Albert's <i>Rechenbüchlin Auff der Federn</i> (Nürnberg, 1534, but from the Wittenberg edition of 1561, fol. B, vj, r) and has a much better explanation than that given by Riese in connection with doubling. The problem is to halve the number 3894. Albert begins with units ("grieff auff die vnterste Linien") and takes half of 4, which is 2. The rest of the solution is shown in the facsimile, the result being 1947, as set forth in the right-hand column.</p> <p>In subtracting one number from another, the counters were often set down in two columns with a line between them, after which the subtraction was performed somewhat as we perform it now. A better plan, however, was first to set the larger number down in counters, then to write the smaller number for reference, and finally actually to remove the counters as the subtraction proceeded. Those counters that were left expressed the remainder. A third plan is</p>
	NUMISMATIC NOTES

ben 2. Greiff auff die ander/nim 9 halb
 hinweg/bleiben 4 vnd ein halbs. Greiff
 auff die dritte/nim acht halb hinweg/
 bleiben 4. Greiff auff die vierde /nim
 3 halb hinweg/ bleibt 1 vnd ein halbs.
 Halbir. Ist halbirte.



Also thue mit diesen Exempeln
 hierunten / Auch allen andern / so dir
 vorkomen.

	3462	————	1731
	2914	————	1457
Leg auff	8760	————	4380
halbir	9408	bläbt	4704
	7952	————	3976
	5314	————	2657

Proba.

Duplir die halbirte zal/ Römpt dir
 widerumb die zal/welche du zuuor auff
 gelegt hast/ so hastu recht halbirte.

Multis

Johann Albert, *Rechenbüchlin*, 1534

From the edition of 1561. Illustrating halving

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	<p>the one here shown in the page from Michael Stifel's <i>Deutsche Arithmetica</i> (Nürnberg, 1545, fol. 4, v). The case is the subtraction of 984,392,760 from 9,286,170,534. The larger number is set down by counters in the left-hand column, the smaller number is written at the left of this column, and the remainder appears at the right. Stifel begins with the highest order, changing 92 (hundred millions) in the larger number to 80 + 12. He is then able to take 9 from 12, and his result thus far is 83 (hundred millions), which he represents by counters in the right-hand column. In a similar manner he proceeds with the other orders.</p> <p>In a case like that of $21,346 - 7,999$, it was not unusual to arrange the larger number so that the subtraction could easily be made without any trouble in borrowing. For example, the Dutch arithmetician Gielis vander Hoecke (Antwerp, 1537) places the larger number, 21,346, in the right-hand column as on page 48. He then reduces this to 1 ten thousand + 5 thousand (space) + 5 thousand (line) + 5</p>
	NUMISMATIC NOTES

Der Erst theyl

Nu machen 16 Mæß 1 schöffel / vñ 12 schöffel mache 1 Malter.

Ist die frag/wie vil es alles korn bringe?

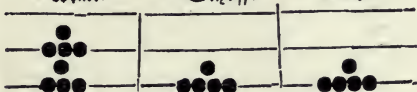
Macht alles 88 Malter/ 9 schöffel/ vnd 9 Mæß.

Stecht dise summa also auff den linien.

Malt:

Schöff:

Mæß:



Von dem Subtrahiren.

V.



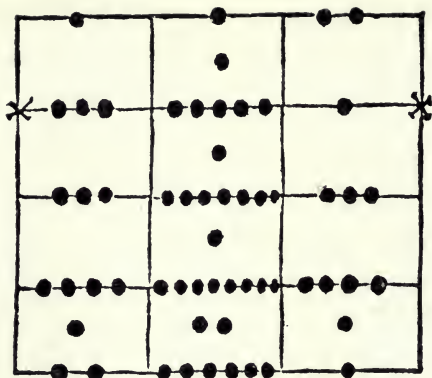
Astu aber ein sum oder zal/da von du etwas wilt subtrahiren oder abziehen/so leg die selbige summen (da von du subtrahiren wilt) auff die linien / vnd die zal oder sum/die du daruon subtrahiren wilt/die magstu im sin behalten/oder magst sie fur dich schreiben mit der freyden/ oder magst sie zur lincken hand der gelegten zal schreiben/wie du sihest am nachfolgenden exempel.



Dise exempel zeige an das ich von diser zal 9286170534. habe subtrahirt/ dise zal 984392760. vnnnd sey mir dise zal 830177774. vber blyben. So hastu nu oben gehört wie die erste figur einer yeden geschribnen zal/gehör zur ersten linien/vnd die ander figur gehört zu der andern lini/vnd die dritte zur

Michael Stifel, *Deutsche Arithmetica*, 1545

Illustrating subtraction



Prooue der addicien.

Set die somme op die linie en treck daer af dat getal diemen heeft gheaddeert so dan die rekeningen alle op staen so is sulcke additie oprecht.

Prooue der subtraction.

Adddeert wed die ghetales welke ghi ghesubtrahceert hebt totte ouergebleuen oft residuo en so dan wed comet dat ghetaal van welken ghi hebt ghesubtrahceert so is sulcke subtractie recht.

Divisio oft deyningen.

Deylet een ghetaal doer dander.

Die eerste reghel.

Legghet die ghetales welke te deylen is op de hanc tegen die rechte hanc en hout den deyleder inden sin/ daer na grupt mette vingher op de sincker side op die overste linie de rekeningen met pauberinge der he

From the Arithmetic of Gielis vander
Hoecke, 1537

Illustrating subtraction

hundred (space) + 7 hundred (line) + 5 tens (space) + 8 tens (line) + 10 (space) + 6 (line), which he places in the middle column. He then subtracts 7 thousand from the 1 ten thousand + 5 thousand (space) + 5 thousand (line) and places the counters (1 ten thousand + 3 thousand) in the left-hand column. The rest of the subtraction is performed in a similar manner, the counters at the left showing the result, 13,347.

In general, it was not the custom to devote much space to explaining the operations with the counters, this being left to the teacher. Thus Hudalrich Regius (*Vtriusque arithmetices epitome*, Strasburg, 1536, but from the Freiburg edition of 1550, fol. 97, r) gives only two examples in subtraction, and depends wholly, except for a brief rule, upon the diagrams given on the following page. The first he calls an "Exemplvm de Linea" and the second an "Exemplvm de Spacio," but there is no essential difference between them. In each case, if a simple subtraction is impossible, a counter is removed from the space or line

E P I T O M E. 97

Subtrahendus.	Superior.	Relictus.
*	•	• *
•	•	
• •	• • • •	•
•	•	•
• • • •	• •	• • • •
•	•	
• •	• • • •	• •
	1 9 7 9	
	7 8 7	
	1 1 9 2	

E X E M P L V M D E S P A C I O.

Subtrahendus.	Superior.	Relictus.
*	• •	• *
•	•	•
• •	• •	• • • •
•	•	•
• • • •	• • • •	•
•	•	
• •	• • • •	•
	2 7 4 8	
	7 8 7	
	1 9 6 1	

N

Hudalrich Regius, *Vtriusque arithmetices
epitome*, 1536

This reproduction is from the 1550 edition. Illus-
trating subtraction

above, and its equivalent is placed on the line (five counters) or in the space (two counters) below.

In a case involving the subtraction of denominate numbers, computers often set down the different denominations, each in its proper *Cambien*. They then subtracted by actually taking away the counters as required by the problem, "borrowing" a counter from a line whenever necessary, and repaying the debt by placing two counters in the space below. The solution on page 52 is from *Ein Neues Rechen Büchlein auff Linien vñ Federn* (Julius-friedenstedt, 1590, fol. cij, r), by Eberhard Popping, one of the later German arithmeticians to make use of counter-reckoning. The problem is to subtract 6324 florins, 16 groschen, 7 pfennigs, 1 heller from 9867 florins, 8 groschen, 3 pfennigs, and only the result is shown on the counting table,—this being incorrect in the number of groschens.

For a simple illustration of the work in multiplication the facsimile page from Bathasar Licht (Leipzig, c. 1500), will



Item / Ein Stadt Jücker hat
 Zerlicher auffkufft in Fünff Terminen
 auffzuheben / 6474. R / 18. g / 9. s /
 Darauff hat er Vier Termine empfan-
 gen / Ist die Frage / Wieviel man ihme
 zum Fünfften Termine noch zu geben
 schuldig sey?

Facit/

1828. R / 10. g / 0 s / 1. hl.

R	g	s	hl
2198	12	2	1
364	7	3	0
1402	0	6	1
681	9	8	1

Thue ihme also: Summir die
 Vier Termine zusammen/was da kömpt
 nimbs abe von der Hauptsynna / das
 bleibend ist der Fünffte Termin.

E ij

Item

Eberhard Popping, *Ein Newes Rechen
 Büchlein auff Linien vñ Federn*, 1590

Illustrating subtraction

serve the purpose. The book was published without date, but the dedicatory epistle closes with the words "Vale ex nostra academia Lyptzen Anno. 1500," so that the illustration represents the process as it must have been performed in Leipzig at the close of the fifteenth century. The author recommends the learning of the multiplication table up to 4×9 . In cases where it was needed beyond this point, the arithmeticians of that period had a simple and convenient rule for multiplying on the fingers. In the example on page 54 the author first, on a preceding page, says, "Volo multiplicare 32 cum 43. Ita pone." ("I wish to multiply 32 and 43 together. Place the counters thus.") He first places the 32 in the left column as seen in the facsimile. He then proceeds with his explanation substantially as follows: Beginning with the tens, we see that 4 times 3 is 12; write the 1 on the thousands' line (which he does not mark with a cross as the other writers usually did), and the 2 on the hundreds' line; 3 times 3 are 9, and this being 9 tens we place a counter above the

Multiplicatio pba nonarta ita tnef. Oportet vtriusq; nu-
meri (si collegisti vt decet) relictū in semultiplicatū cū pducti
relictō pcordare Si aliter te errasse cognoscas.

Multiplicandus	Multiplicans	Productum
32	43	1376

Opposite speciei proba in primā prorogat speciē. Quia di-
uisio probat mltiplicatiōz, mediatio duplicationem. Subtra-
ctio additionem et econtra.

In diuisione duo sunt ob-

seruanda et Multiplicatio ⁊ Subtractio. Consta-
mitur autē diuisio in duas Reglas. prima a super-
riorib⁹ descendere incipias vbi q̄cientiūq; vltima
diuisoris tabule relictū via Multiplicatia in proiectilib⁹ digi-
to subiectis haberi potest. Totiens subtractionis more a li-
nea digito tacta illud pductū detrahaf. hinc digitū trāspone
prope sequentē lineā. q̄cientē iterū in sequentē diuisoris figū
rā mltiplicando qd̄ productū lineę q̄scentis digiti aufer.
Nunc ita descendere licebit semp. Nisi p̄ma diuisoris q̄scere
iuberet. demū vbi desinisti. sup̄ hāc lineā in cābio oppositi late-
ris ponaf nūmerus q̄tiens. Et in reliquis iscentib⁹ proiectilib⁹
taliter diuisiue semp procedere oporteat donec ad infimā li-
neā puentū fuerit. Est et in diuisione cauendū. ne talis nume-
r⁹ q̄tiens inueniat. qualē aliq̄ linearū sequēs passura nō esset.
Secunda Regla Si nūmer⁹ diuident⁹ diuifore est minor. di-
uisoris medietas (si adest) a diuidento auferatur. et sub̄ li-
neam digito tactā. in spacio vnus proiectilis ponatur. Itā to-
ta diuisione facta si aliquid residui minus diuifore relinquit
relictū appellaf qd̄ cum diuifore fractionē constituere intelli-
gitur. Exemplum volo diuidere 1376 per 43

Bi

Balthasar Licht, Arithmetic, c. 1500

Illustrating multiplication and the check of "casting
out nines"

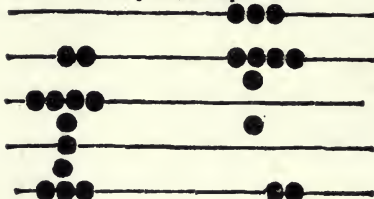
tens' line and 4 counters on the line; 2 times 4 are 8, and this being 8 tens we place a counter above the tens' line and 3 counters on the line. He now readjusts the counters thus placed, carrying the 2 fifties to the hundreds' line, and 5 tens to the fifty space. He finally multiplies 2 by 3 and, for the product, places 1 in the fives' space and one on the units' line. The work then appears as shown in the facsimile. The two crosses below the units' line indicate the check by "casting out nines." The rest of the page is given to the first steps in division.

Another example in multiplication, from the Latin work of Joannes Noviomagus (*De Numeris Libri II*, Paris, 1539, but from the Deventer edition of 1551, fol. Eij, r), shows the operation of finding 14 times 2468 by the use of the counters. The author begins with the lowest order and reduces as he proceeds, the result being shown in the right-hand column.

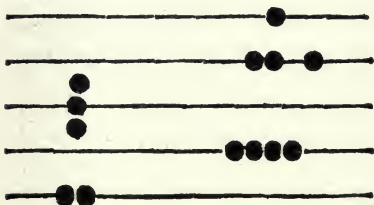
The operation of division was always a difficult one before the Hindu-Arabic numerals became generally known and

LIBER I.

2468 per 14 multiplicata.



Obserua ut nummo posito in spacio digitus collocetur in linea, cui spaciū est subiectum, ut sublato nummo ex spacio, ad dextrum ponatur diuidens numerū dimidium, ut 652 per 20. hac forma ut sequitur.

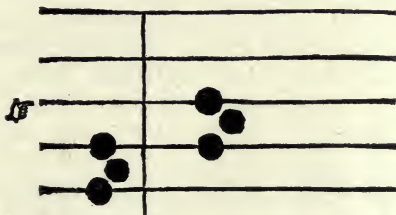


E ð. 206

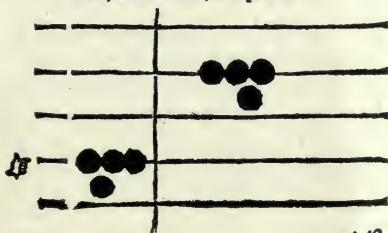
Joannes Noviomas, *De Nvmeris Libri*
II, 1539

Illustrating multiplication

sito digito secundæ lineæ, nummus in summa positus
denarium efficit qui auferendus ponendusq; iuxta di-
gitū. Deinde proximus quinarium ualens, uel dimidium
denarij transferendus ad spaciū leuam sub digito.
Tertius simili ratione transposito uel ablato digito,
ponendus in infima linea.



Diuisio numeri 3500 per 100.



Diuisio

Joachim Sterck van Ringelbergh,
Lycubrations, 1541

Illustrating two simple cases of division

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	<p>used in Europe, say in the fifteenth century. It could be performed with the Greek numerals, or even with those used by the Egyptians and other early peoples, but it was always looked upon as a process to be avoided. The illustration on page 57 is from a work by Joachim Sterck van Ringelbergh (<i>Opera</i>, Leyden, 1531, but this illustration from the Basel edition of his <i>Lucubrations</i>, 1541, p. 415) and shows the operation in its simplest form. Two problems are given on the page, the first being the division of 160 by 10, in which the counters in the right-hand column are merely lowered one line to form the result in the left-hand column; and the second being the division of 3500 by 100, which is performed in a similar fashion. The most difficult case that Ringelbergh considers is that of 600 divided by 24, of which no explanation is given, all of which shows how difficult the process was considered even in his time.</p> <p>The illustration from Recorde's <i>Ground of Artes</i> (c. 1542, but from the 1596 edition) gives an idea of the method of beginning a</p>
	NUMISMATIC NOTES

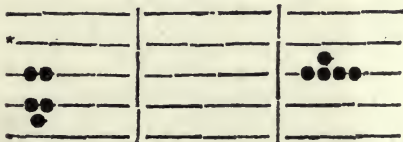
Diuision.



First set downe the diuisor, for feare of forgetting, and then set the number that shall be diuided, at the right side, so farre from the diuisor, that the quotient may be set betwene them:

as for example.

If 225 sheepe cost 45 £, what did euery sheepe cost? To know this, I should diuide the whole summe, that is 45 £ by 225, but that cannot be: therefore must I first reduce that 45 £ into a lesser denomination, as into shillings, then I multiplie 45 by 20, and it is 900: that sum shall I diuide by the number of sheepe, which is 225, these two numbers therefore I set thus.



Then begin I at the highest line of the diuident, and seeke how often I may haue the diuisor therein, and that may I doe foure times: then say I foure times 2 are 8, which if I take from 9, there resteth but 1, thus,

And

Robert Recorde, *Ground of Artes*, c, 1542

This reproduction is from the 1596 edition. Illustrating diuision

60	COMPUTING JETONS
	<p>practical problem in division. The problem requires the division of £45 by 225, and the facsimile shows the necessity for first reducing the £45 to 900 shillings. Recorde then takes 4×200 from 900 and has 100 left, after which he shows that the remaining 25 of the 225 is contained in this remainder four times.</p> <p>There arose in early times, possibly in India but spreading rapidly to the north and west, a commercial rule which went by the name of Rule of Three. Its nature may be inferred from a single problem taken, with slight variation in terms, from <i>Eyn new künstlich behend vnd gewiss Rechenbüchlin</i>, written by Henricus Grammateus, or Heinrich Schreiber (Vienna, 1518, but from the Frankfort edition of 1535, fol. B, vij, v): "If 4 dreilings of wine cost 90 florins, 3 schillings, 18 pfennigs, how much will 7 dreilings cost?" Here three terms are given, and the rule was that the fourth could be found by multiplying the second and third together and dividing by the first. How this was done in numerals is shown in the upper part of the facsimile</p>
	NUMISMATIC NOTES

$\begin{array}{r} 2 \\ 6 \\ 4 \end{array} \begin{array}{r} 2 \\ 7 \\ 4 \end{array} \begin{array}{r} 2 \\ 2 \\ 4 \end{array}) 157 \text{ fl. } 10 \text{ β auff ein ort.}$

$\begin{array}{r} 2 \\ 4 \end{array} \begin{array}{r} 7 \\ 4 \end{array} (9 \text{ β/} 30 \text{ d auff ein ort.}$

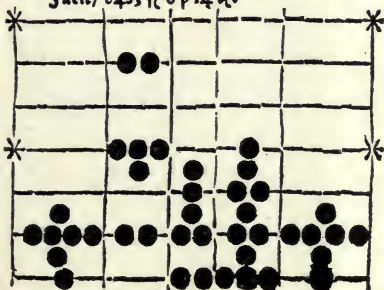
$\begin{array}{r} 2 \\ 4 \end{array} \begin{array}{r} 3 \\ 4 \end{array} \begin{array}{r} 2 \\ 4 \end{array} (39 \text{ d.}$

Facit 158 fl. 2 β/9 d.

Wann du aber solche rechnung oder der gleichen wilt machen vff der linien/so leg die letzte zal vff die linien gegen der lincken hand/vnnd multiplicir durch alle münz in sunderheit/vnd leg ein igliche münz in jr feld/vñ teyl durch die erste zal in aller gestalt wie in obern exempelē ist gechehen/als dann die würt gesehen.

$24 \text{ lb } 1120 \text{ fl } 7 \text{ β } 16 \text{ d } 1 \text{ heller/ } 96 \text{ lb}$

Facit 8493 fl 6 β 14 d.



Henricus Grammateus, or Heinrich
 Schreiber, *Eyn new künstlich behend*
vnd gewiss Rechenbüchlin, 1518

This reproduction is from the 1535 edition. Illustrating the Rule of Three

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	<p>on page 61, the lower part showing how a similar problem could be solved by the aid of counters.</p> <p>A much more interesting illustration of the use of the counters in the Rule of Three is the one here given from an anonymous manuscript written at Salisbury, evidently in the Cathedral School, in 1533. The interest lies chiefly in the fact that manuscripts on counter reckoning, written in England, are very rare, and that this one is a particularly good piece of work. The first part of this manuscript relates to the <i>computus</i>, that is, to the computations of the calendar,—<i>Declaratio Calendarii et Almanach huius Ciste</i>. The second part is entitled <i>Ars supputandi cum Denariis</i>. The whole is written on vellum and is one of the most interesting of the sixteenth-century manuscripts in Mr. Plimpton's library. The problem states that two things cost £6, from which it requires the cost of twelve things. The counters in the three columns at the left represent 2, 6, and 12. The answer, xxxvi, is written, under "Quartus incognitus," in the fourth column.</p>
	NUMISMATIC NOTES

numerū per secundū multiplica, supplexii.
 per.vi.et.pueniunt ad.Lxxii. que p primū
 numerū diuide. supple per duo, et quart⁹
 numerus sup.xxxvi.prius incognitus,pre
 tiū duodecim lapidum est ostendens. Et
 his omnibus finitis, secundus numerus et
 quartus, semp de eadem re tractant.

		*	
Primus nu.	Secundus nu.	Tertius nume.	Quartus incognitus.
Res empta.	Pretium rei.	Questio.	
			xxxvi.
duo lapides.	Pro xi. lib.	quatuor xii. con庄ant.	

From an Anonymous Manuscript of 1533

Written at Salisbury England. It shows the compu-
 tation by jetons in solving a problem in the Rule of
 Three

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	<p data-bbox="393 239 828 264" style="text-align: center;">HISTORY OF MINTED JETONS</p> <p data-bbox="295 280 926 1181">I have thus far spoken of the rise of the jeton in ancient times and of its significance and use in numerical computation. It remains to say a few words concerning those minted pieces which have come down to us from the Middle Ages and which constitute the chief point of contact with the work of the numismatist. This part of the general topic has been so thoroughly treated by Professor Barnard, however, that there remains but little to be done except to call attention once more to his great contribution to the subject. The few illustrations which I give are from specimens in my own collection, and are included for the purpose of completing this elementary presentation of the subject rather than on account of any rarity of the pieces themselves. They represent such ordinary counters as were prepared in Germany, chiefly at Nürnberg, for the use of computers in various parts of Europe.</p> <p data-bbox="295 1189 926 1305">Naturally the greatest interest in medieval counters lies in the Italian pieces, Italy having been the source from which were</p>
	NUMISMATIC NOTES

derived the methods of computation used in the northern European countries. As already stated, the use of the abacus was abandoned there much earlier than it was north of the Alps. The commerce which Venice, Pisa, and Genoa had with the East tended to bring the Hindu-Arabic numerals into practical use in Italy long before they became familiar in the less accessible countries of France, England, Germany, and the Netherlands. For their early computations the merchants may have used the Roman counters,—usually disks of bone or of baked clay; they may have found the grooved abacus more convenient; or they may have used the digital computation which was international during a long period and which is still found in Russia, Poland, and certain of the Balkan states.

About the year 1200, however, the Lombard bankers and merchants began to use a minted type of counter. From that time on until about the close of the fourteenth century such counters seem to have been used in Italy, often in a half-

hearted way, but in the fifteenth century even this use died out. The Treviso arithmetic of 1478, the first work on computation to appear from the press, makes no mention of counters, and no other Italian textbook on the subject, printed in that century, discusses the matter. Because of the fact that the mercantile and banking class in Italy abandoned the use of counters so long before the rest of Europe, most of the extant specimens are confined to the fourteenth and fifteenth centuries. Such pieces are very rare, and the only worthy description that we have of them is a recent one by Professor Barnard ("Italian Jettons," *Numismatic Chronicle*, vol. xx (4), for 1920).

The counter of numismatic nature first appeared in France about the same time that it appeared in Italy, that is, early in the thirteenth century. The earliest identified piece mentioned by Professor Barnard is one that seems to have belonged to the household of Blanche of Castile (1200-1252), queen of Louis VIII. Since the use of these pieces is explained by Ian Tren-

chant as late, at least, as the 1578 edition of his *Arithmetique*, we may conclude that numismatic jetons were employed in France for ordinary computation for a period of about four hundred years (1200-1600).

In the sixteenth and seventeenth centuries the favored land of the counter (*Rechenpfennig*) was Germany. Although her merchants knew the Hindu-Arabic numerals and could operate with them, her Rechenmeisters made common use of the abacus long after most other countries of Western Europe had virtually abandoned it. Her most popular arithmetics of the sixteenth century coupled reckoning "auff Linien" with that by the "Feder," and apparently her merchant apprentices favored the ancient method. The names of Hans Schultes, the Krauwinkels, the Laufers (Lauffers), and others appear on thousands of extant jetons of Nürnberg manufacture, and these pieces were sent to all parts of Europe, being manufactured for France, England, the Netherlands, Austria, and the smaller states, as well as

for those cities which now belong to modern Germany. The illustrations on Plates I-IV are selected from the Nürnberg products.

In the Low Countries, jetons were used as early as the fourteenth century, but the computing pieces now commonly seen in museums and the cabinets of numismatists are of the fifteenth and sixteenth centuries. The medallic jetons of the seventeenth century could scarcely have been generally used for computing purposes, for the arithmetics of these countries never paid much attention to the subject, and those of the seventeenth century rarely mentioned it.

Spain gave but little attention to the use of the counters after the invention of printing. Such jetons as she struck were probably, in most cases, for other purposes than computing. A few pieces were struck in Portugal in the sixteenth century, and were apparently used for computation.

English jetons of the fourteenth century are to be seen in numismatic collections, but beginning about the middle of the century the need was commonly met by

pieces made abroad,—at first by Flemish craftsmen, but later by those of Nürnberg. As already stated, counter reckoning went out of use about the close of the sixteenth century, although jetons for gaming purposes were sent over from Germany until well into the eighteenth century.

SUMMARY

The points which I have endeavored to make may be summarized briefly as follows:

1. The ancient notations were so inconvenient as to render inevitable the use of mechanical aids.

2. These aids were of various kinds, and go back probably to prehistoric times.

3. The chief interest for mathematicians lies in the field of computation and concerns the various forms of the line abacus, the methods employed in calculation, the steps that slowly led to the modern calculating machine, and the prospects of the development of simpler and less expensive devices that will render nearly all computation mechanical.

4. The chief interest for the historian lies in a study of the human needs which the abacus, in its various forms, tended to satisfy, and also in the possibility that ingenuity will, as stated above, devise a more efficient machine at a low cost so that human energy may be still further conserved through mechanical calculation.

5. The chief interest for the numismatist lies not so much in the use of the jeton as in its history as a minted product. This product began to appear in the thirteenth century and ceased to meet any reasonable human need in the eighteenth. For the real lover of numismatical science, however, there is always a deep interest in the human story involved in the pieces that he examines, and it is some phases of this human story that I have endeavored to set forth in this brief monograph.



Early Nürnberg Jetons

c. 1450-1500



A Dutch Jeton of 1562



The Rechenmeister Type of Jetons

Nürnberg, c. 1500-1553



Nürnberg Jeton by Hans Schultes
c. 1550-1574



Nürnberg Jetons by Hans Krauwinkel
c. 1580-1610

2
72



Nürnberg Jeton by Wolf Lauffer

c. 1618-1660. Intended for use in France



Nürnberg Jetons by Conrad Lauffer

Intended for use in England in the time of Charles II,
for gaming purposes

NUMISMATIC NOTES
AND MONOGRAPHS

No. 10



THE FIRST SELEUCID COINAGE
OF TYRE

By EDWARD T. NEWELL

THE AMERICAN NUMISMATIC SOCIETY
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BY
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THE AMERICAN NUMISMATIC SOCIETY
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THE FIRST SELEUCID COINAGE
OF TYRE

BY EDWARD T. NEWELL

In the city of Tyre was located one of the most active mints of the Seleucid kings. Their well known tetradrachms of Phœnician weight, bearing the eagle type associated with the usual symbol of the Tyrian mint (the club combined with the letters TYP), are among the commonest coins of the entire Seleucid series. It is, however, a matter of considerable surprise when we contemplate the fact that the striking of these particular coins only commenced with the reign of Alexander I Bala (150-145 B.C.), although the flourishing city of Tyre had already been subject to the Syrian monarchs for over fifty years.

Under the previous dominion of the Ptolemaic kings of Egypt the city had constituted one of their principal mints—

indeed the most prolific and continuously active one along the entire Phoenician coast.¹ It is difficult to believe, therefore, that Tyre really ceased for a time to coin silver, when in 201 B.C. Antiochus III entered its gates and the city became the centre of his Phoenician dominions. The commercial importance of Tyre, its great strategic value, and its past numismatic history all point to the necessary conclusion that its silver coinage could hardly have stopped when it passed from Lagid to Seleucid rule.

It is true that a few copper coins have already been attributed to Tyre for the period preceding the reign of Alexander Bala. In addition, one tetradrachm bearing the portrait of Antiochus III has also been assigned to this mint by Dr. J. Rouvier (No. 1824 in his *Numismatique des Villes de la Phénicie*, *Jour. Int. Num.*, Vol. 6, 1904). This latter piece, however, because of its style and fabric, probably never emanated from the Tyrian mint.² We are, therefore, reduced to the above mentioned rather paltry copper coinage as the sole

T Y R E	3
<p>representatives for over fifty years of the wealthy city of Tyre and a great Seleucid fortress.</p> <p>Induced by this somewhat surprising state of affairs to institute a careful search through the various catalogues of important public collections and also such private collections as were accessible to him, the writer was soon rewarded by finding a comparatively large and remarkably homogeneous group of tetradrachms and drachms whose attribution to Tyre now appears certain. With these the disturbing and, in fact, impossible gap in the Tyrian silver coinage, which extended from the capture of the city by Antiochus III in 201 B.C. to the inauguration of the well known series of "eagle" tetradrachms of Phoenician weight in 150 B.C. (the first year of Alexander I's reign), is now completely and apparently satisfactorily filled. As the following catalogue shows, every Seleucid sovereign who reigned during the fifty years in question is represented by an adequate silver coinage, in addition to a plentiful series of bronze coins.</p>	
A N D M O N O G R A P H S	

The writer is here desirous of expressing his deep sense of gratitude to the Rev. Edgar Rogers for his great kindness in allowing him to publish certain rare and apparently unpublished varieties (Nos. 51 and 53). The writer is also very grateful to Dr. Rogers, M. Jameson, and the authorities of the British Museum and Paris collections for their kindness and trouble in sending him casts of certain important pieces needed for this article.

ANTIOCHUS III, 223-187 B.C.

SERIES I, CIRCA 201-196 B.C.

I TETRADRACHM.

Obv. Head to right adorned with diadem with fluttering ends. The features of Antiochus III are rather fleshy, his nose is comparatively short.

Rev. ΒΑΣΙΛΕΥΣ on right. ANTIOXOY on left. Apollo, completely naked, seated to left on omphalos. He holds arrow in outstretched right hand and rests left on a bow of the "composit" type. On r., outside inscription, Α. On l., outside inscription, Α.

Newell Coll.

Plate I.

T Y R E	5
<p>2 TETRADRACHM. <i>Obv.</i> From the same die as the preceding coin. <i>Rev.</i> Similar, but the shaft of Apollo's bow forms a simple curve. Newell Coll. Plate I. Another in commerce, gr. 17.23.</p> <p>3 CHALKOUS. <i>Obv.</i> Similar head to right, at times in a circle of dots. <i>Rev.</i> ΒΑΣΙΛΕΥΣ above. ANTIOXOY below. Prow of galley, adorned with dolphin, to l., in circle of dots. Newell Coll. Two specimens, gr. 6.65 and 5.36. Plate I.</p> <p>4 CHALKOUS. <i>Obv.</i> Similar. <i>Rev.</i> Similar, but above prow is to be seen the date ΠΙΕ (=198-197 B.C.). Paris, No. 450 (gr. 4.40) Pl. xi, 5; No. 451 gr. 4.90.</p> <p>5 DILEPTON. <i>Obv.</i> Similar. <i>Rev.</i> ΒΑΣΙΛΕΥΣ on right. ANTIOXOY on left. Palm tree, the whole surrounded by a circle of dots. Newell Coll. gr. 2.76. Plate I.</p>	
A N D M O N O G R A P H S	

While conforming in a general way to the types and style of the tetradrachms which the writer has elsewhere³ shown must be assigned to Antioch, our two coins, Nos. 1 and 2, nevertheless differ markedly in many minor details. This fact at once suggests the possibility that we have here to do with the issues of another mint. On the other hand, the technique of the die-cutting and the fabric of the coins themselves point to a mint whose location could not have been at any very great distance from Antioch, that is to say, as far away as Asia Minor or Babylonia. We must, therefore, look nearer home—perhaps in Cilicia, Syria, or along the Phœnician coast.

Again the features of Antiochus on these coins show that he is no longer a young man. The coins must certainly be later than Nos. 7 to 12 on Plate I of the writer's "The Seleucid Mint of Antioch," where the features are still very youthful. On the other hand, our head does not exhibit the sunken cheeks and sharper profile of Nos. 25 to 30 on Plate II of the same work.

T Y R E	7
<p>In other words, our coins evidently fall somewhere between these two groups and so are to be considered as nearly contemporaneous with Series II of the Antiochene mint which is assigned to about 206-200 B.C. A comparison of the portraiture confirms this in a general way.</p> <p>A glance at our Plate I shows unmistakably the close connection that must exist between the bronze coins (Nos. 3 and 5) there displayed and our two tetradrachms. There is a striking similarity between the portraits which all these coins bear, and a still greater similarity in the style of their die-cutting. So evident is this, that the most conservative of numismatists will probably admit the strong chance that all these coins were perhaps actually issued from one and the same mint. Now the technique displayed by the bronze coins, the flans upon which they were struck and, above all, their types are characteristically, even certainly, Phoenician. Hence, at least, the tentative assignment of Nos. 1-5 to some important Phoenician city can hardly be seriously</p>	
A N D M O N O G R A P H S	

8	S E L E U C I D C O I N A G E
	<p>disputed. Furthermore, it should be pointed out that the conclusions arrived at above as to the approximate date of their first appearance coincides with the historical fact that Antiochus III finally secured possession of the Phœnician coast in the spring of 201 B.C. The actual date borne by No. 4 is probably the terminus of this particular issue. The definite assignment to Tyre, as proposed in this article, of our tetradrachms rests largely upon the attribution of Series II and III.</p> <p>The bronze coins described above have been given, following M. Babelon and Dr. J. Rouvier, the convenient terms of Chalkous and Dilepton to facilitate a quick distinction between the two denominations used. To determine upon what really are the denominations found in Greek copper coins is a knotty problem, and requires a longer period of research and study before it is placed upon a definite and acceptable basis. The terms are here used only for convenience sake and in deference to M. Babelon's well-known authority.⁴</p>
	N U M I S M A T I C N O T E S

SERIES II, CIRCA 196 B.C.

6 TETRADRACHM.

Obv. Diademed head as on preceding tetradrachms but with longer nose and features less fleshy. The diadem ends henceforth hang down straight instead of fluttering.

Rev. Inscription and type as on Nos. 1 and 2. Apollo is entirely nude as before, but the omphalos is here draped with his himation. His bow is again of the simple type. On l. outside inscription, Α. On r., outside inscription, Α.

Paris, No. 336, **Plate II**; Athens, *Jour. Int. Num.* Vol. VI, 1903, Pl. vii, 2.

7 TETRADRACHM.

Obv. From the same obverse die as was used for the preceding coins.

Rev. Similar. On l., outside inscription, Α. On r., outside inscription, Α.

Newell Coll.

Plate II.

8 TETRADRACHM.

Obv. Similar but of higher relief and better style. For the first time a circle of dots surrounds the head.

Rev. Similar, but the omphalos (as on Nos. 1 and 2), is no longer draped. The bow is of simple style. On l., outside inscription, Α. On r., outside inscription, [Α]. In exergue, Bull rushing to l.

Paris, No. 337.

Plate II.

Nos. 6 and 7 of this series are united not only by the monogram Α found on both, but especially by the fact that their obverses were struck from the same die. No. 6 bears also the monogram [Α] which we have seen occurred on our two first tetradrachms Nos. 1 and 2. Therefore, in spite of the minor differences in style and details of design between the two groups, it is probable that they were all struck in one and the same mint. This inference is definitely proved by No. 8 which in style and details of the obverse design is closest to Nos. 6 and 7, but in the style of its reverse is closest to Nos. 1 and 2. Furthermore, it bears the same two monograms Α and [Α] found on the tetradrachms of Series I, and so must certainly have been struck at their mint. The infuriated bull which

is to be seen in the exergue of this coin is probably only a magistrate's symbol.

SERIES III, CIRCA 196-188 B.C.

9 TETRADRACHM.

Obv. Diademed head of Antiochus III to r. surrounded by a circle of dots. The portrait on this and the following coins is somewhat idealized, the features are thinner and sharper, the nose long and pointed. The diadem ends hang down stiffly. The breaks which appear later on this die do not show here.

Rev. On r. ΒΑΣΙΛΕΩΣ; on l., ANTI-
OXOY. Apollo, naked but for his right thigh which is draped, is seated to l. on omphalos, the top of which is also draped. In style and details, this reverse approaches closest to those of Nos. 6 and 7. On l., outside inscription, ΝΚ; on r., outside inscription, Π.

Paris, No. 291 (erroneously attributed to Antiochus Hierax) Pl. viii, fig. 6, here **Plate III**. A much finer specimen from the same obverse and reverse dies is shown on Pl. xxii, No. 581, Hirsch Sale, XXXII. 1912.

10 TETRADRACHM.

Obv. From the same obverse die. Die

12	S E L E U C I D C O I N A G E
	<p>breaks are here commencing to show at the back of the head.</p> <p><i>Rev.</i> As above, but only Apollo's right thigh is draped. On l., outside inscription, NK. On r., outside inscription, E. In exergue, <i>Bow in Quiver.</i></p> <p>Pozzi Sale, Apr. 4, 1921, Pl. lxxxvi, No. 2948, Plate III.</p> <p>11 TETRADRACHM.</p> <p><i>Obv.</i> From the same die as the preceding, but with the die breaks still more evident.</p> <p><i>Rev.</i> Similar to preceding, but with Apollo entirely nude. On l., outside inscription, A, and Lighted Torch. On r., outside inscription, NK. In exergue, <i>Club.</i></p> <p>London, No. 7, Plate III; Newell Coll.; Paris, No. 290 (erroneously attributed to Antiochus Hierax); Pozzi Sale, Apr. 4, 1921, Pl. lxxxvi, No. 2949.</p> <p>12 TETRADRACHM.</p> <p><i>Obv.</i> From the same obverse die as was used for the preceding coin.</p> <p><i>Rev.</i> Similar. On l., outside inscription, A. On r., outside inscription, NK: Newell Coll. Plate IV. A similar coin, but with the obverse from another die, was sold by Mme. Serrure in her sale of Nov. 18, 1911, No. 76, Pl. iii.</p>
	N U M I S M A T I C N O T E S

T Y R E	13
<p>13 DRACHM. <i>Obv.</i> Diademed head similar to preceding. <i>Rev.</i> Similar type and inscription. On l., outside inscription, A. On r., outside inscription, NK. Newell Coll. Plate V; Pozzi Sale, Apr. 4, 1921, Pl. lxxxvi, No. 2956.</p> <p>14 TETRADRACHM. <i>Obv.</i> From the same die as Nos. 9-12. <i>Rev.</i> Similar to preceding. On left, outside inscription, A. On r., outside inscription, NK. In exergue, <i>Club</i>. Rev. Edgar Rogers. Plate IV.</p> <p>15 TETRADRACHM. <i>Obv.</i> From the same die as the preceding. This die is now showing very bad breaks and dimmed outlines due to long continued use. <i>Rev.</i> Similar to preceding. On l., outside inscription, A above <i>Club</i>. On r., outside inscription, NK. Newell Coll. Plate IV; another in commerce.</p> <p>16 CHALKOUS. <i>Obv.</i> Diademed head with sharp features as on preceding coins. Circle of dots around.</p>	
A N D M O N O G R A P H S	

14	S E L E U C I D C O I N A G E
	<p><i>Rev.</i> ΒΑΣΙΛΕΩΣ above. ANTIOXOY below. Stern of galley (not prow as described by M. Babelon). In field the date ΠΙΖ (=196-195 B.C.) Paris, No. 452. gr. 7.75. Pl. xi, 6.</p> <p>17 CHALKOUS. <i>Obv.</i> Similar. <i>Rev.</i> Similar but date is ΠΙΘ (=194-193 B.C.). Newell Coll. gr. 7.20. Plate V.</p> <p>18 CHALKOUS. <i>Obv.</i> Similar. <i>Rev.</i> Similar but date is ΠΚ (=193-192 B.C.). Newell Coll. gr. 9.32.</p> <p>19 CHALKOUS. <i>Obv.</i> Similar. <i>Rev.</i> Similar but date is ΠΚΔ (=189-188 B.C.). London, No. 33.</p> <p>20 DILEPTON. <i>Obv.</i> Similar, features thinner and sharper than on No. 5. <i>Rev.</i> ΒΑΣΙΛΕΩΣ on r. ANTIOXOY on l. Palm tree. The whole in circle of dots.</p>
	N U M I S M A T I C N O T E S

T Y R E	15
<p>Newell Coll. 4 specimens, gr. 3.27, 2.35, 2.24, 2.05 Plate V; Paris, Nos. 577-578, gr. 2.00 and 3.15 (erroneously assigned to Antiochus IV); Dr. Rouvier, No. 1823; London, No. 48, Pl. ix, 8.</p> <p>We need not here delay over the attribution of the bronze coins Nos. 16-20 to Tyre, an attribution that is certain and recognized by all recent authorities. The dates PIZ to PKΔ which appear on the larger of the two denominations show their issue to have taken place between the years 196 and 189 B.C. The small bronze pieces, Nos. 5 and 20, with the type of the palm tree, are the beginning of a long line of similar pieces whose attribution to Tyre is certain and has so been recognized by Dr. J. Rouvier as well as by M. Babelon.</p> <p>Nos. 9, 10, 11, 12, 14 and 15, form a remarkably homogeneous group. All the known specimens, with but a single exception (an example of No. 12) are struck from one and the same obverse die. A glance at these coins, as reproduced on Plates III and IV, shows clearly the advancing wear, breaks, and general deterioration of the particular die in question, due to its long continued service. Especially</p>	
A N D M O N O G R A P H S	

16	S E L E U C I D C O I N A G E
	<p>to be noted is the fact that this group of coins throughout displays a monogram already used for the issues of Series I and II, namely Α, thus conclusively proving that these coins must all be the issues of a single mint. Finally, the tetradrachms of Series III are important as now, for the first time in Seleucid numismatics, appears the Club—the customary attribute of Tyrian Heracles and the usual symbol of the mint of Tyre. The two symbols, Lighted Torch and Quiver, occurring on our coins only intermittently, are evidently but the symbols of magistrates responsible for the coinage and so, unlike the Club, do not occur again on later issues.</p> <p style="text-align: center;">SERIES IV, CIRCA 188-187 B.C.</p> <p>21 TETRADRACHM.</p> <p><i>Obv.</i> Diademed head of Antiochus III to r.</p> <p><i>Rev.</i> ΒΑΣΙΛΕΥΣ on r. ANTIOXOY on l. Apollo seated to l. on omphalos, holding arrow in right hand and resting left on bow. On l., outside inscription ΣΑ and <i>Club</i>. On r., outside inscription, ΝΚ.</p> <p style="text-align: center;">Coll. of Dr. E. P. Robinson. Plate V.</p>
	N U M I S M A T I C N O T E S

T Y R E	17
<p>The single known tetradrachm of Series IV was probably struck but a short time previous to the death of Antiochus III. This follows from the fact that not only the symbol but also both monograms are found on the immediately succeeding issue of Seleucus IV. Thus is finally crystallized the general type and character of the silver issues of Seleucid Tyre until the time when the entire system was changed by Alexander I Bala.</p> <p>The style of No. 21 is identical with that of the immediately preceding tetradrachms of Series III. Like them, it bears the mint symbol <i>Club</i>, and the monogram NK which has been found to occur on Nos. 9 to 15 inclusive. Further proof of the identity of the mint is hardly necessary. A new magistrate, signing his initials ΣA immediately above the club, appears now for the first time, but we will have further occasion to record his signature on the succeeding issues of Seleucus IV and Antiochus IV.</p>	
A N D M O N O G R A P H S	

18	S E L E U C I D C O I N A G E
	<p style="text-align: center;">SELEUCUS IV, 187-175 B.C.</p> <p>22 TETRADRACHM. <i>Obv.</i> Diademed head of Seleucus IV to r. Circle of dots. <i>Rev.</i> ΒΑΣΙΛΕΩΣ on r. ΣΕΛΕΥΚΟΥ on l. Apollo seated to r., as on previous issues, holding arrow in outstretched right hand and resting left on bow. On l., outside inscription, <i>Club</i> and ΣΑ. On r., outside inscription, ΝΚ (or Νξ). Rev. Edgar Rogers Coll. Plate VI.</p> <p>23 TETRADRACHM. <i>Obv.</i> Similar. <i>Rev.</i> Similar. On l., outside inscription, <i>Club</i> and ΣΑ. On r., outside inscription, Α. <i>Num. Chron.</i>, 1883. Pl. vi, No. 3; Rev. Edgar Rogers, Plate VI (the club is missing on this specimen).</p> <p>24 CHALKOUS. <i>Obv.</i> Similar diademed head of Seleucus IV to r. Circle of pearls. <i>Rev.</i> ΒΑΣΙΛΕΩΣ above. ΣΕΛΕΥΚΟΥ below. Stern of galley as on the later bronze issues of Antiochus III. In</p>
	N U M I S M A T I C N O T E S

T Y R E	19
<p>field, the date EAP (=178-177 B.C.). Glasgow, Hunterian Coll., No. 11 (gr. 7.55), Pl. lxvi, 5.</p> <p>25 CHALKOUS. <i>Obv.</i> Similar. <i>Rev.</i> Similar, but date is SAP (=177-176 B.C.). Paris, No. 509 (gr. 7.10), No. 510 (gr. 6.80).</p> <p>26 CHALKOUS. <i>Obv.</i> Similar. <i>Rev.</i> Similar, but date is PΛΞ (=176-175 B.C.). Paris, No. 512 (gr. 7.20), Pl. xi, 20; Glasgow, Hunterian Coll. No. 12 (gr. 6.84); Newell Coll., (gr. 6.95) Plate VI.</p> <p>27 CHALKOUS. <i>Obv.</i> Similar. <i>Rev.</i> Similar, but date is PΛΗ (=175-174 B.C.). Newell Coll., gr. 6.30.</p> <p>28 DILEPTON. <i>Obv.</i> Similar. <i>Rev.</i> ΒΑΣΙΛΕΩΣ on r. ΣΕΛΕΥΚΟΥ on l. Palm tree, the whole in circle of dots. Newell Coll. (gr. 2.00) Plate VI.</p>	
A N D M O N O G R A P H S	

The two tetradrachms described above, bearing the name and portrait of Seleucus IV, follow closely the type and style of his father's last issue in Tyre. Each coin, furthermore, displays in the left field, outside the inscription, the magistrate's initials ΣΑ and beneath them the mint-mark Club—thus exactly reproducing the above mentioned piece of Antiochus III (No. 21). Finally, in the right field of our coins are to be seen either ΝΚ (No. 22) or Α (No. 23), both monograms occurring frequently on preceding coinages. There can be no possible question, therefore, but that we here possess issues for the same mint whose activities we have studied for the preceding reign.

The bronze coins, Nos. 24-28, likewise carry on the issues of Antiochus III for Tyre. We see the same types used for the two denominations struck, excepting only that the portrait and name of Seleucus IV have now been substituted for those of his father Antiochus the Great. Similarly, it is only the larger of the two denominations that bear dates, in this case ΕΑΡ

to PΛH inclusive. This latter date PΛH (year 138 Aer. Sel. = after September 30th of 175 B.C.) is interesting as its existence on the coinage of Seleucus IV has been questioned more than once. First published by Sestini (*Lett. Num.* Vol. VIII, p. 110) where, however, the coin has been wrongly described, the portrait of Seleucus being called a bust of Dionysus and the ship's stern a prow—it has been republished by Mionnet although he questions it in the following terms: "*Si cette date a été bien lue, elle donne un grand prix à cette médaille qui prolonge le règne de Séleucus IV d'une année ou de quelques mois, puisque c'est en l'an 138 de l'ère des Séleucides qu'Antiochus IV est monté sur le trône.*" Furthermore, Cavedoni (*Rev. Num.* 1856, p. 377) has attempted to reject the date PΛH, while Clinton in his *Fasti Hellenici* does not even mention it under the reign of Seleucus IV. On these apparently sufficient grounds M. Babelon, too, in his "*Les Rois de Syrie, d'Arménie et de Commagène*," p. xci, discards the date in question from among the coins of Seleucus. On the other hand,

22	S E L E U C I D C O I N A G E
	<p>the coin in the author's collection (No. 27) is unquestionably an issue of Seleucus IV as it bears a typical portrait of that king, while the name ΣΕΛΕΥΚΟΥ is plainly visible. The types correct the description of the coin given by Sestini and prove the piece to belong to the issues of the mint now under discussion. The date ΠΑΗ, in its usual position immediately above the stern, is quite legible, and, in particular, the final letter H—the crux of the whole matter—chances to be clearest of all. The coin is not reproduced on our plate as the character of the patina with which it is covered is such that, while the date is quite legible to the naked eye, it has been found impossible to secure a plaster cast of sufficient clearness to make reproduction on the plates worth while.</p> <p>The presence of the date ΠΑΗ on a coin of Seleucus IV is proved by the specimen in the author's collection. Can we explain this appearance in the face of the general scepticism among scholars recorded above? I think the true explanation lies in the circumstances immediately follow-</p>
	N U M I S M A T I C N O T E S





T Y R E	23
<p>ing the assassination of Seleucus IV by his minister Heliodorus. This latter event appears in all probability to have occurred in the summer of 175 B.C., as the chronologists give Seleucus twelve years of reign. Now there followed several months of doubt and uncertainty regarding the succession to the Seleucid throne. Heliodorus as regent probably proclaimed Antiochus, infant son of the murdered king, and carried on the rule in his name. On the other hand, Antiochus, the brother of Seleucus IV, being at Athens when the news of the assassination reached him, immediately proclaimed his own candidacy to the throne. He sailed for Asia Minor and with the assistance of Eumenes, king of Pergamum, finally overcame Heliodorus and secured the dominions of his brother. These events must have covered many months to allow sufficient time for the news to reach Athens, for Antiochus to arrive in Asia Minor, for Eumenes to collect his forces, for the subsequent advance into Syria and for the eventual overthrow of Heliodorus. It might well be, therefore,</p>	
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that the Seleucid year 138—which we now know for certain saw the striking of bronze coins with the names of both Seleucus IV (No. 27) and Antiochus IV (No. 33)—was already several months old before Antiochus finally found himself completely master of the situation. In the meanwhile things must have been somewhat uncertain. And as small change was needed in Tyre, the authorities there decided to continue the bronze coinage with the old types but bearing the correct date PAH. Such a procedure neither faction could really take amiss. So soon as Antiochus was definitely established in Syria, Tyre hastened to change the old types for the new ones on her coinages.

It is, of course, possible that the assassination of Seleucus did not actually take place until after the commencement of the year 138 *Aer. Sel.* (that is after September or October 175 B.C.)—we do not know the exact date of this occurrence. Such dated cuneiform tablets as have been published⁵ do not help us much in this regard. The latest one dated in the reign



T Y R E	25
<p>of Seleucus IV bears the date 135 <i>Aer. Sel.</i> (=177-176 B.C.), while the first one of Antiochus IV was dated on the 22nd day of Iyyar of the year 138. This corresponds to May 174 B.C., as in Babylonian records the Seleucid Era appears to have been computed from the first of Nisan (April) of 312 B.C.</p> <p>ANTIOCHUS IV, 175-164 B.C.</p> <p>SERIES I.</p> <p>29 TETRADRACHM.</p> <p><i>Obv.</i> Diademed head of Antiochus IV to r. Around, fillet (?) border.</p> <p><i>Rev.</i> ΒΑΣΙΛΕΩΣ on r. ANTIOXOY on l. Apollo seated to l. on omphalos, holds arrow in outstretched right hand and rests left on bow. On l., outside inscription, ΣΑ over <i>Club</i>. On r., outside inscription, Α.</p> <p>Paris, No. 518. Plate VII.</p> <p>30 DRACHM.</p> <p><i>Obv.</i> Similar.</p> <p><i>Rev.</i> Similar.</p> <p>Athens. Plate VII.</p> <p>31 DRACHM.</p> <p><i>Obv.</i> Similar.</p>	
A N D M O N O G R A P H S	

26	S E L E U C I D C O I N A G E
	<p><i>Rev.</i> Similar, but Club is in exergue and ΣΑ is missing. Glasgow (Hunterian Coll. No. 6).</p> <p>32 DRACHM. <i>Obv.</i> Similar. <i>Rev.</i> Similar, but Club only on l. Glasgow (Hunterian Coll. No. 7.)</p> <p>33 CHALKOUS. <i>Obv.</i> Similar. Circle of dots. <i>Rev.</i> ΒΑΣΙΛΕΩΣ above. ANTIOXOY below. Stern of galley above which is date Λ ΠΗ (= 175-174 B.C.). Paris, No. 672 (gr. 7.20), Pl. xiv, fig. 19; Rouvier Coll., No. 1840, where type is wrongly described as <i>prow</i>.</p> <p>34 CHALKOUS. <i>Obv.</i> Similar. <i>Rev.</i> Similar, but date is ΛΘΑΡ (= 174-173 B.C.). Paris, No. 673 (gr. 5.45).</p> <p>35 DILEPTON. <i>Obv.</i> Similar. <i>Rev.</i> ΒΑΣΙΛΕΩΣ on r. ANTIOXOY on l. Palm tree. Rouvier Coll., No. 1845.</p>
	N U M I S M A T I C N O T E S

T Y R E	27
<p style="text-align: center;">S E R I E S I I .</p> <p>36 TETRADRACHM.</p> <p><i>Obv.</i> Diademed head of Antiochus IV to r. Fillet border around.</p> <p><i>Rev.</i> ΒΑΣΙΛΕΥΣ on r. ANTIOXOY on l. Apollo, as on No. 29, seated to l. On l., outside inscription,  over <i>Club</i>. On r., outside inscription, .</p> <p>R. Jameson Coll., No. 1696. Plate VII.</p> <p>37 TETRADRACHM.</p> <p><i>Obv.</i> Similar.</p> <p><i>Rev.</i> Similar. On l., outside inscription,  over <i>Wing</i>. On r., outside inscription, . <i>Club</i> in exergue.</p> <p>Glasgow (Hunterian Coll., No. 5), Pl. lxvi, 10.</p> <p>38. CHALKOUS.</p> <p><i>Obv.</i> Diademed head of Antiochus IV to r. Behind ΔMP (=169-168 B.C.).</p> <p><i>Rev.</i> ΒΑΣΙΛΕΥΣ ANTIOXOY ΤΥΡΡΙΩΝ in three lines above stern of galley.</p> <p>לְצַר אִסְצְרִים in two lines beneath.</p> <p>Newell (gr. 7.33); Rouvier Coll. No. 1842, Pl. xviii, 25; London, No. 55; Paris, Nos. 674 (Pl. xiv. fig. 20) to 677 (gr. 7.50, 7.75, 8.50, 7.65).</p>	
A N D M O N O G R A P H S	

28	S E L E U C I D C O I N A G E
	<p>39 CHALKOUS.</p> <p><i>Obv.</i> Similar, but date is EMP (= 168-167 B.C.).</p> <p><i>Rev.</i> Similar.</p> <p>Paris, No. 678 (gr. 6.35).</p> <p>40 CHALKOUS.</p> <p><i>Obv.</i> Similar, but the head is also radiate and there is no date.</p> <p><i>Rev.</i> Similar inscriptions, but type represents prow of a galley.</p> <p>Paris, Nos. 679-681 (gr. 6.10, 7.70, 6.85); Rouvier Coll. No. 1844.</p> <p>Rouvier describes these coins as showing a prow instead of the stern of a galley, and cites the pieces in the Paris Collection. M. Babelon, however, makes no note of the change in type.</p> <p>In the 138th year of the Seleucid Era, the brilliant but erratic Antiochus IV, surnamed Epiphanes, finally became established as ruler of the empire. This we learn definitely from the dated bronze coins struck in Tyre (Nos. 27 and 33), which in that year substituted his name and portrait for those of Seleucus his predecessor.</p> <p>With regard to the Tyrian silver issues of Antiochus, we should note that the first</p>
	N U M I S M A T I C N O T E S

T Y R E	29
<p>series continues exactly the style and appearance of the Seleucus' coinage for this mint. The two magistrates ΣΑ and Α again sign their initials on the coinage, thus making it certain that we have here the issues of a single mint.</p> <p>The break which occurs in the Tyrian bronze coinage (no issues known between ΘΑΡ and ΔΑΡ) appears to extend to the silver coinage as well. An interval of some years duration must have elapsed between the appearance of Nos. 29 and 36. Though they are evidently the issues of one mint—they both display the club symbol, which by now we have come to recognize as characteristic of our series, and the same magistrate's monogram Α—there is a noticeable difference in style. In this respect the earlier coin is nearest to its immediate predecessors under Seleucus IV. Its style is fine, its relief is still rather high, its flan is small and the surface of its reverse is somewhat concave.</p> <p>On the other hand, Nos. 36 and 37 are more closely allied with the succeeding silver issues under Antiochus V and</p>	
A N D M O N O G R A P H S	

30	S E L E U C I D C O I N A G E
	<p>Demetrius I. Like them, Nos. 36 and 37 are of lower relief and more spread fabric. On No. 37, for the first time, an additional symbol—a wing—appears in the field, and is henceforth always present until the reform instituted in the Tyrian coinage in the first year of Alexander I Bala.</p> <p>ANTIOCHUS V, 164-162 B.C.</p> <p>On the sudden death of Antiochus Epiphanes, his young son, also named Antiochus, succeeded him for a short and troubled reign of two years. None-the-less, both silver and bronze coins were issued in his name at Tyre, as the following pieces bear witness.</p> <p>41 TETRADRACHM.</p> <p><i>Obv.</i> Diademed head of Antiochus V to r. Fillet border.</p> <p><i>Rev.</i> ΒΑΣΙΛΕΥΣ on r. ANTIOXOY on l. ΕΥΗΛΑΤΟΡΟΣ in exergue. Apollo seated to l. as on No. 36. On l., outside inscription,  above <i>Wing</i>. On r., outside inscription,  above <i>Club</i>.</p> <p>London, No. 1. Plate VII.</p> <p>42 DILEPTON.</p> <p><i>Obv.</i> Similar. Border of dots.</p>
	N U M I S M A T I C N O T E S

T Y R E	31
<p><i>Rev.</i> ΒΑΣΙΛΕΩΣ on r. ANTIOXOY on l. Palm tree.</p> <p>Rouvier Coll., No. 1846. Pl. xviii, 23.</p> <p>43 DILEPTON.</p> <p><i>Obv.</i> Similar.</p> <p><i>Rev.</i> Similar, but in field N—P (= 163-162 B.C.).</p> <p>Cat. Walcher de Moltheim No. 2947, Pl. xxvi; Newell Coll. (gr. 2.43). Plate VII. Rouvier Coll., No. 1847.</p> <p>In style and appearance these coins are exactly similar to the last issues under Antiochus IV. On the tetradrachm we may notice the monograms of the two magistrates who had previously signed No. 37. Our coin also displays the <i>Club</i> and the <i>Wing</i> symbols. For the first time in our mint there now appears on the silver coinage the official appellation—in this case Εὐπάτωρ—of the ruling king, a custom which had already become prevalent in the central mint of Antioch under Antiochus IV (see the author's "The Seleucid Mint of Antioch," <i>Amer. Jour. of Num.</i>, Vol. LI).</p>	
A N D M O N O G R A P H S	

32	S E L E U C I D C O I N A G E
	<p style="text-align: center;">DEMETRIUS I, 162-151 B.C.</p> <p>44 TETRADRACHM.</p> <p><i>Obv.</i> Diademed head of Demetrius I. to r., the whole surrounded by a laurel wreath.</p> <p><i>Rev.</i> ΒΑΣΙΛΕΩΣ on r. ΔΗΜΗΤΡΙΟΥ on l. Tyche enthroned to l., holds short sceptre in r. hand and cornucopiæ in l. On l., outside inscription, ☞ over <i>Club</i>. On r., outside inscription, ☞ over <i>Wing</i>.</p> <p>London, No. 35; Warren Coll., No. 1301. Pl. xxx; Paris (recent acquisition), monogram here is ☞.</p> <p style="text-align: right;">Plate VIII.</p> <p>45 TETRADRACHM.</p> <p><i>Obv.</i> Similar.</p> <p><i>Rev.</i> Similar. On l., outside inscription, ☞ over <i>Wing</i>. On r., outside inscription, ☞. In exergue, <i>Club</i>.</p> <p>Paris, No. 714, Plate VIII; Glasgow (Hunterian Coll., No. 7).</p> <p>46 DRACHM.</p> <p><i>Obv.</i> Similar but head is surrounded with a dotted border instead of the laurel wreath.</p> <p><i>Rev.</i> Similar. On l., outside inscription,</p>
	N U M I S M A T I C N O T E S

tion, ☸ over *Wing*. On r., outside inscription, ☸. In exergue, *Club*.

Egger, XLV, Pl. xix, 680; Rev. Edgar Rogers Coll., Plate VIII; Petrowicz Coll. (Z.f.N. -Vol. XXIX, 1912, Pl. iv, 17).

47 CHALKOUS.

Obv. Diademed head of Demetrius to r. Border of dots.

Rev. ΒΑΣΙΛΕΩΣ ΔΗΜΗΤΡΙΟΥ ΛΑΝΡ (=159-158 B.C.) in three lines above stern of galley. ΤΥΡΙΩΝ and לצר beneath.

London, Nos. 43 and 44; Paris, No. 770 (gr. 8.10) and No. 771 (gr. 6.05) Pl. xvii, fig. 2; Rouvier Coll., No. 1850; Newell Coll. (gr. 7.24).

48 HEMICHALKOUS.

Obv. Similar.

Rev. ΒΑΣΙΛΕΩΣ ΔΗΜΗΤΡΙΟΥ ΤΥΡΙΩΝ in three lines above prow to l. ΛΑΝΡ (=159-158 B.C.) and לצר in exergue.

Rouvier Coll., No. 1848, Pl. xviii, 27; Rev. Edgar Rogers Coll.

49 HEMICHALKOUS.

Obv. Similar.

Rev. ΒΑΣΙΛΕΩΣ ΔΗΜΗΤΡΙΟΥ ΛΑΝΡ in three lines above prow to l. ΤΥΡΙΩΝ and לצר in exergue.

Rouvier Coll., No. 1849, Pl. xviii, 26; Rev. Edgar Rogers Coll. **Plate VIII.**

50 CHALKOUS.

Obv. Similar.

Rev. Similar to No. 47 except that date is LHNP (=155-154 B.C.).

Newell Coll (gr. 7.30, 6.25); Paris, Nos. 772 to 774 (gr. 6.10, 7.70, 6.50); London, Nos. 45 and 46; Rouvier Coll., No. 1851; Rev. Edgar Rogers Coll.

51 HEMICHALKOUS.

Obv. Similar.

Rev. Like No. 49 but dated HNP.

Rev. Edgar Rogers Coll.

52 CHALKOUS.

Obv. Similar.

Rev. Similar to No. 50, except that the date is ΘNP (=154-153 B.C.).

Newell Coll. (gr. 6.55); Paris, Nos. 775, 776 (gr. 7.10, 6.55); London, Nos. 47 and 48; Rouvier Coll., No. 1852; Rev. Edgar Rogers Coll.

53 HEMICHALKOUS.

Obv. Similar.

Rev. Similar to No. 51, except that date is ΘNP.

Rev. Edgar Rogers Coll.

54 DILEPTON.

Obv. Similar.

Rev. ΒΑΣΙΑΕΩΣ on r. ΔΗΜΗΤΡΙΟΥ

T Y R E	35
<p>on 1. Palm tree. Date is ΞP (=153-152 B.C.). Paris, No. 779 (gr. 2.45), Pl. xvii, fig. 3; Newell Coll. (gr. 2.08, 2.20, 1.80, 1.90). Plate VIII.</p> <p>55 DILEPTON. <i>Obv.</i> Similar. <i>Rev.</i> Similar, except that date reads LA — ΞP (=152-151 B.C.). Schroeder Coll., Beyrout.</p> <p>Demetrius' Tyrian coins, both in silver and bronze, continue all the features first introduced during the latter portion of Antiochus Epiphanes' reign and continued in the coinage of his young son Antiochus V. The issues of Demetrius are still supervised by the magistrate Ω and the tetradrachms and drachms all bear the symbols <i>Club</i> and <i>Wing</i>. The coinage continues at intervals throughout the twelve years reign of Demetrius until the 161st of the Seleucid era. In that year his rival, Alexander I, surnamed Bala, first secured a good foothold in Phoenicia. The following year the latter finally succeeded in completely overthrowing Demetrius, who perished in a pitched battle fought not far from Antioch.</p>	
A N D M O N O G R A P H S	

36	S E L E U C I D C O I N A G E
	<p data-bbox="254 265 895 888">It was in that very same year, namely 162 of the Seleucid Era, that Alexander first introduced the Ptolemaic system of coinage into the Seleucid series. These new tetradrachms and didrachms are of Phoenician weight, they display the portrait of the ruler on the obverse, his name and the Ptolemaic eagle on the reverse. They were first struck in large quantities at the mints of Tyre, Sidon and Berytus. The monograms or symbols of these cities are conspicuously placed in the reverse field. Tyre is designated by a Club and monogram, Sidon by ΣΙ and an Acrostolium, Berytus by a Trident.</p> <p data-bbox="329 893 816 918">* * * * *</p> <p data-bbox="254 938 895 1348">In the preceding pages has been described a group of silver tetradrachms and occasional drachms which together form an unusually homogeneous series. With the exception of a few varieties at the very commencement, every one of these silver coins displays a club as symbol, in addition to varying monograms and other symbols. The club, therefore, is the characteristic symbol of this series as a whole, and we</p>
	N U M I S M A T I C N O T E S

have every reason for recognizing in it the symbol of the mint which once issued this group of coins. To judge by the portrait of Antiochus III, under whom this issue commenced, its first appearance must be assigned to about the middle of that monarch's reign. It finally came to an end with the accession of Alexander Bala, who substituted his well-known Phœnician tetradrachms with their accompanying smaller denominations. No coins similar to those described in the preceding pages have so far been published or exist in any collection to which the writer has had access, which bear any other portrait than those of the five kings immediately preceding Alexander Bala.

In the introduction attention was called to the surprising fact that scholars have not yet been successful in assigning any Seleucid silver issues to the wealthy seaport of Tyre, from the time it was finally captured by Antiochus III to the death of Demetrius I. And yet, throughout these fifty odd years, Phœnicia had formed a vastly important province of the Syrian

38	S E L E U C I D C O I N A G E
	<p>Empire under the more or less prosperous reigns of Antiochus III, Seleucus IV, Antiochus IV, Antiochus V and Demetrius I. That Tyre really possessed an active mint throughout this very period we are certain because of the large series of named and dated bronze coins whose attribution is absolutely beyond question. Now, as shown above, there has come to light a strikingly homogeneous series of tetradrachms and accompanying drachms which bear the names and portraits of every one of the five missing kings. The series commences abruptly with the tetradrachms of Antiochus III and ends as abruptly with those of Demetrius I. The latter, however, should be compared with the succeeding Phoenician tetradrachms of Alexander Bala, those of Tyrian mintage, which they closely resemble in style and technique. The surmise that one and all were struck in Tyre is definitely confirmed by the practically invariable presence of the club, a symbol which for over four hundred years was continuously employed to indicate the Tyrian mint. Moreover, the</p>
	N U M I S M A T I C N O T E S

portraits on the accompanying bronze coins, whose attribution to Tyre is certain, closely resemble in character and workmanship those found on the silver denominations.

Thus that unexplainable gap in the Tyrian silver mintage, the only real gap that existed in its issues from the time when the mint was reopened under Antigonos after its closing by Alexander the Great, until the final silver issues under the Roman emperors Trajan and Caracalla, is now apparently closed. Incidentally, one more group of the great Seleucid series can be placed on one side as now assignable, with every appearance of finality, to its original mint—in this case, Tyre.

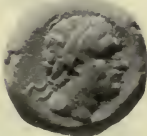
40	S E L E U C I D C O I N A G E
	<p data-bbox="530 500 646 530" style="text-align: center;">NOTES</p> <p data-bbox="267 551 909 640">¹ Compare its issues with those of Sidon, Gaza, Ptolemais, or Joppa in Svoronos' "Τὰ Νομίσματα τοῦ Κράτους τῶν Πτολεμαίων."</p> <p data-bbox="267 657 909 778">² In a recent letter to the writer, the Rev. Edgar Rogers, well known for his studies of the Seleucid series, made this same observation based upon previous and entirely independent research.</p> <p data-bbox="267 794 909 852">³ "The Seleucid Mint of Antioch," <i>Amer. Jour. Num.</i> Vol. LI, 1917.</p> <p data-bbox="298 868 529 898">⁴ Rois de Syrie, etc.</p> <p data-bbox="267 915 909 973">⁵ A. T. Clay: <i>Legal Documents from Erech</i>, N. Y., 1913, <i>Intro.</i>, p. 14.</p>
	N U M I S M A T I C N O T E S



1



2



3



5

Antiochus III

Series I



6



7



8



Antiochus III

Series II





9



10



11

Antiochus III

Series III





12



14



15



Antiochus III

Series III





13



17



20



21



Antiochus III
Series III (Nos. 13-20)
Series IV (No. 21)



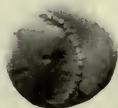
22



23



26



28





29



30



36



36



41



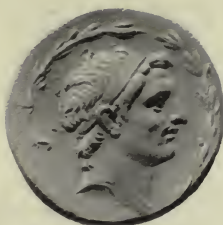
43



41

Antiochus IV (Nos. 29-36)

Antiochus V (Nos. 41-43)



44



45



46



49



54



Demetrius I



NUMISMATIC NOTES AND MONOGRAPHS

No. 11



FRENCH ORDERS AND DECORATIONS

By HARROLD E. GILLINGHAM

THE AMERICAN NUMISMATIC SOCIETY
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NUMISMATIC
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NUMISMATIC NOTES AND MONOGRAPHS is devoted to essays and treatises on subjects relating to coins, paper money, medals and decorations, and is uniform with Hispanic Notes and Monographs published by the Hispanic Society of America, and with Indian Notes and Monographs issued by the Museum of the American Indian-Heye Foundation.



Légion d'Honneur (Officer)
Second Republic

4/

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VLL

DEDICATED TO

J. SANFORD SALTUS

Officer of the Legion of Honour

TO WHOSE INITIATIVE AND CONTINUED
INTEREST THE AMERICAN NUMISMATIC
SOCIETY IS INDEBTED FOR THE EXCEP-
TIONALLY IMPORTANT COLLECTIONS
OF DECORATIONS AND WAR MEDALS
OF ALL NATIONS IN ITS MUSEUM
THIS COLLECTION HAS DONE MUCH TO
STIMULATE THE AUTHOR'S INTEREST IN
THIS BRANCH OF NUMISMATICS

FRENCH ORDERS AND DECORATIONS

BY HARROLD E. GILLINGHAM

From a numismatic standpoint, France is one of the most interesting countries of Europe. There have been few great movements affecting the map of that continent or the welfare of its people without the participation of France. Because of this share in matters of historical importance, French Orders and Decorations, and French awards of honour and bravery have a variety of form and design which would hardly be found in a nation of fewer political upheavals.

The present material is submitted in the hope that it may stimulate interest in this branch of Numismatics. Many of the problems which have arisen in its study are complicated; no adequate treatment of them has been found in English. As much of the

NUMISMATIC NOTES

2	FRENCH ORDERS
	<p>material is in foreign languages, scattered through many volumes, it is to be hoped that this paper will prove useful and of interest to collectors.</p> <p>From 496 to 1783 there were thirty-four Orders created in France. Few, if any, have remained in continuous existence since the beginning of the 19th Century. (See table, pp. 102-105.)</p> <p>ORDRE DE LA SAINTE-AMPOULE.</p> <p>The earliest of these French Orders was created in the year 496 by Hlodiwig, called the Great, but better known as Clovis I, fifth king of France, 481 to 511. The <i>Ordre de la Sainte-Ampoule</i> (Order of the Holy Vial) was probably established in 493, soon after he married Hlotechild, or Clothilde. She was a Christian maiden; and coming under her influence and that of Remigues, Bishop of Rheims, Clovis embraced Christianity. He was baptized by St. Remi in 496, thus sealing an alliance with the Church. Little if anything can be learned as to the period this Order was in existence or concerning its discontinuance. It is said that an</p>
	NUMISMATIC NOTES



Ordre de la Sainte-Ampoule

effort was made to revive it during the Restoration but this fact has not been confirmed. The insignia illustrated appears to be of the 18th or 19th Centuries which would indicate an attempted revival of the Order. It is a white enamelled gold cross, with a white and gold dove symbolic of the Holy Spirit. Below it is a jar or vial, also of gold. Gold fleurs-de-lis are in each of the angles of the cross. The enamelled reverse bears the effigy of a bishop in white and red robes. With a staff in his left hand, he stands with his right hand raised invoking a blessing. The ribbon is black moiré.

HOSPITALIERS DE SAINT-JEAN DE JERUSALEM. This Order was founded in 1048 by pilgrims to the Holy City. There they had established a hospital for the care of their sick and needy brethren. They were not too pious to fight and when harassed by the Mohammedans in 1118, it was found necessary to change their organization into a religious Order of Chivalry. At one time they were located in the island of Cyprus, and from 1310 to 1522 the island of Rhodes.



Hospitaliers de Saint-Jean de Jérusalem

6	FRENCH ORDERS
	<p>In 1530 the home of the Order was transferred to the island of Malta. They were driven from there by Napoleon I in 1798. They sought refuge in Rome, where their headquarters is maintained to this day.</p> <p>Some writers class this Order as Papal; by others it is spoken of as the Knights of Malta. It really belongs to several countries, for early in its history langues or branches were established in France, England, Italy, Germany, Provence, Auvergne and Aragon. The last of these was later divided to create the langue of Castile. After the Peace of Amiens in 1802, the langues of Aragon and Castile united under one authority in Spain. Some of these langues are independent of the Roman Headquarters.</p> <p>The Order of the Hospitalers of St. John of Jerusalem in England is influenced and almost entirely managed by members of the Church of England; and the hospitalers confine themselves entirely to charitable and hospital work.</p> <p>The French branch of this Order is not only the oldest but it is the only one in continuous existence since the day of the</p>
	NUMISMATIC NOTES

Crusader. All the branches use the white enamelled Maltese Cross for their insignia of the Order, but with slight variations. Austria has the gold double-headed, triple-crowned eagle in the angles of the cross. For England, the lion and the unicorn appear in the alternate angles. Black eagles with gold crowns are used by Germany; while France, Italy and Spain use the golden fleurs-de-lis in the angles and suspend the cross from a crown, with a ring for the ribbon which in all cases is black moiré. The Papal cross is unadorned in the angles though surmounted by a crown.

The banner of the Order is the plain white cross used by the Crusaders. When Amadeus V, Count of Savoy, rendered such heroic assistance to the Knights of St. John during the attack on Rhodes by the Turks under Mahomet II in 1315, he was granted for his personal use the Arms of the Order and given a collar with the letters F. E. R. T., standing for *Fortitudo ejus Rhodum tenuit* (By his bravery, Rhodes was held). This cross became the Cross of Savoy, and the letters F. E. R. T. appear on several of the

8	F R E N C H O R D E R S
	<p>Orders of that country. The Cross is still in use there and appears on the Italian flag, medals and coinage, the present Dynasty being of the House of Savoy.¹</p> <p>ORDRE DU SAINT-SÉPULCRE. It is difficult to assign the founder or ascertain the date of the origin of this Order. A variety of opinions is recorded by the authorities. Some attribute it to Saint James, the Bishop of Jerusalem, in the year 69 and others to St. Helena, the mother of Constantine, in 326. Pope Alexander VI wished to be considered as the founder of the Order, in 1496. As the majority of writers give much credit to "Godefroy de Bouillon, duc de Basse-Lorraine," the first King of Jerusalem, and fix the year as 1099 when the Crusaders again entered Jerusalem, we are not without warrant for classing it among the French Orders.</p> <p>During the 12th Century this Order was established at Saint-Samson d'Orléans, and later spread throughout France. In 1254, Saint-Louis established a branch of the Order of the Holy Sepulchre at Saint-</p>
	N U M I S M A T I C N O T E S



Ordre du Saint-Sépulcre

Chapelle, after his return from the Crusades. In August, 1814, Louis XVIII granted the members additional privileges, but the Order was suppressed in France in 1823.² The insignia is a four-armed gold cross, *potencée* (each arm shaped like a T), with a smaller cross of the same description in each of the angles; the whole is a gold rimmed red enamelled cross. The ribbon is black *moiré*.

ORDRE DE SAINT-HUBERT. In 1416, during the reign of Charles VI, several followers of Louis I, Duke of Bar, formed an association for the defence of their sovereign, and called it the *Ordre de la Fidélité*. Seven years later one chapter of the Order changed its name to the *Ordre de Saint-Hubert de Lorraine et du Barrois*. They placed themselves under the protection of St. Hubert who had been bishop of Liège in 708. According to the legend, the conversion of Saint Hubert was brought about while he was hunting on Good Friday, by the appearance of a stag bearing a crucifix between its horns. Since then Saint Hubert has been the patron saint of hunters. The Order was

AND DECORATIONS

II

protected by Louis XIV, Louis XV and Louis XVI. It shared the fate of other orders of Chivalry during the Revolution. Louis XVIII caused it to be reestablished in 1816. It was finally abolished in 1824.³

The insignia is a gold cross, white enamelled. The centre medallion of green bears a gold representation of St. Hubert's conversion. On the reverse appears the Arms of Bar with the legend *ORDO NOBILIS SANCTI HUBERTI INSTITUTUS ANNO 1416*. Bavaria also has an Order of Saint Hubert, which was founded in 1444 by Gérard V.

ORDRE DE SAINT-MICHEL. Established on August 1, 1469, by Louis XI (1423-1483) to reward those who had distinguished themselves in activities which brought credit to the State, such as letters, arts, sciences and discoveries. It was suspended in 1789 at the beginning of the Revolution. In 1816 it was revived by Louis XVIII though definitely abolished in 1830. Specimens of the insignia are occasionally found though they are usually of the Restoration period.

AND MONOGRAPHS



Ordre de Saint-Michel

The earlier ones do not have the fleurs-de-lis in the angles.

The cross consists of a four-armed, double-pointed, ball-tipped cross with white enamelled rims. The edges and centres are of gold or silver, according to the grade. Fleurs-de-lis are in the angles of the cross arms. An oval medallion in the centre has a figure of Saint Michael slaying the dragon. The reverse is the same. The cross is suspended by a ring for a black moiré ribbon.

ORDRE DU SAINT-ESPRIT. This Order was established on December 30, 1578, by Henry III (1551-1589). The object of this Order was to offset the power of the Holy League and to maintain the Catholic Religion, as well as to uphold the dignity of the nobility. It was also to commemorate Henry's accession to the throne of France and his being made King of Poland. The Order was suspended in 1791, revived in 1814 by Louis XVIII, and discontinued in 1830 when Louis Philippe, Duke of Orleans, ascended the throne of France. At that time many of the Peerages and Orders revived

14	FRENCH ORDERS
	<p>or created by Louis XVIII and Charles X were suppressed.</p> <p>During the reign of Louis XVIII the Order of the Holy Spirit ranked in importance with the Order of the Garter of England and the Order of the Golden Fleece of Spain. In 1817 the Danish Ambassador presented the Order of the Elephant of Denmark to the French King. Wishing to show the importance of the Order and its equality with the Saint-Esprit of France, he is said to have remarked to the King, "Our Holy Spirit is an elephant."</p> <p>The Decoration of the Holy Ghost consists of a four-armed, double-pointed, ball-tipped, gold cross, enamelled white and green with gold fleurs-de-lis in the angles. In the centre is a white enamelled dove. On the reverse is depicted St. Michael slaying the dragon. The motto of the Order is <i>DUCE ET AUSPICE</i> (Led and inspired), and the ribbon is blue moiré.</p> <p>ORDRE DE NOTRE-DAME DU MONT-CARMEL. Instituted in 1607 by King Henry IV (1553-1610) in testimony to the sincerity</p>
	NUMISMATIC NOTES



Ordre du Saint-Esprit

16	FRENCH ORDERS
	<p>of his conversion. In 1608 it was united with the <i>Ordre de Saint-Lazare</i>. The latter order was originally founded in Palestine in 1060 by charitable Christians to care for the sick and particularly for the lepers. In 1154 it was established in France by Louis VII, called the Young, who had himself made an unfortunate pilgrimage to Jerusalem. After 1608 it became the <i>Ordre de Saint-Lazare et de Notre-Dame du Mont-Carmel</i>.</p> <p>The insignia of the Order is a cross of green and white enamel. This cross is four-armed, double pointed, ball-tipped and with fleur-de-lis in the angles. In the center of the obverse is depicted the resurrection of Lazarus. A green band inscribed <i>ATAVIS ET ARMIS</i> surrounds this. The reverse has a figure of the Virgin and Child. The ribbon is green moiré.</p> <p>This Order was abolished in 1791 by the Revolutionists. Though revived during the reign of Louis XVIII, it was suppressed fourteen years later during the reign of Louis Philippe.</p>
	NUMISMATIC NOTES



Saint-Lazare et Notre-Dame du Mt. Carmel

ORDRE ROYAL ET MILITAIRE DE SAINT-LOUIS. On April 5, 1693, eight years after the revocation of the Edict of Nantes, Louis XIV (1638-1715) founded the *Ordre Royal et Militaire de Saint-Louis*. It was used to reward his officials who had professed the Catholic faith and who had rendered distinguished service. It was confirmed by Louis XV. Suppressed in 1789 and was revived by Louis XVIII in May, 1816. Though dormant by 1830, it was not finally discontinued until 1848. Good specimens of this insignia are occasionally to be found today.

The decoration is a white enamelled gold cross, similar in design to that of the Orders of Saint Michael and of the Holy Spirit. On the medallion of the obverse is the ermine-robed figure of Saint Louis in gold armour and Royal robes, holding in his right hand a crown of thorns and in his left a laurel wreath. Around the figure on a blue band is the inscription, *LUD[OVICUS] M[AGNUS] INST[ITUIT] 1693*. On the reverse, an upright sword impales a laurel wreath, and the whole is surrounded by a



Ordre de Saint-Louis

20	FRENCH ORDERS
	<p>blue band with the words, <i>BELL[ICAE] VIRTUTIS PRAEM[IUM]</i> (The reward of warlike courage). The inscription is in full on some varieties. The ribbon is bright red moiré.</p> <p>Prior to the Restoration there were no fleurs-de-lis in the angles of the cross. Variants of this insignia have ball-tipped points, and one has a gold knot between the insignia and the ribbon ring; on another, the inscription on the obverse is <i>LUD. M. INST. 1693.</i></p> <p>ORDRE DU MÉRITE MILITAIRE. Founded on March 10, 1759, by Louis XV (1710-1774) but only for officers of the Protestant faith whom he desired to reward for services rendered the Crown and State. This Order shared the fate of the Order of Saint Louis, being suppressed during the Revolution. It was rehabilitated in 1816 and was definitely discontinued in 1848.</p> <p>The decoration is similar to that of Saint Louis—a ball tipped white enamelled cross with a red-enamel centre displaying two laurel branches, surrounded by a blue band</p>
	NUMISMATIC NOTES



Ordre du Mérite Militaire

22	FRENCH ORDERS
	<p>inscribed <i>LUD[OVICUS] XV INST[ITUIT] 1759</i>. The reverse shows a gold sword upright. On an enclosing blue enamelled band are the words <i>PRO VIRTUTE BELLICA</i>. A variant has on the obverse <i>LUDOVI XV INSTITUIT 1759</i>, and on the reverse <i>PRAEM. BELL. VIRTUTIS</i>. The ribbon is blue moiré.</p> <p>MÉDAILLE DE VÉTÉRANCE. The desires of Louis XV to confer some mark of distinction on soldiers who had served twenty-five years or more, resulted in the establishment of the <i>Médaille de Vétérance</i> on April 16, 1771. This decoration consists of an oval wreath of copper-gilt with a red centre made of silk. On this silk are two crossed swords of metal or embroidered in gold thread, and tied with a knot of ribbon. An anchor under the swords indicates a Veteran of the Navy. The veterans who had served forty-eight years received two such decorations joined together. The oval when surmounted by a crown had the signification that the recipient was an Officer.</p>
	NUMISMATIC NOTES

REVOLUTION

Although the Revolution of 1789-1790 was brought about mainly because the populace of France wanted a liberal Constitution and were weary of the rule of kings, the people had become so accustomed to the pomp of Royalty and to the decorations, so often the evidence of Royal favour, that it seemed very natural to them to have some means of distinguishing the real workers from the non-combatants.

MÉDAILLE DES VAINQUEURS DE LA BASTILLE. The Commune of Paris adopted on September 1st, 1789, an insignia to reward the victorious *Citoyens* who had brought about the fall of the Bastille on July 14 of that year. It is called the *Médaille des Vainqueurs de la Bastille*. This was abolished in 1793. The decoration is in gold, bronze-gilt and bronze, in the form of a diamond lozenge, with pellets at the angle points and with suspension ring for the red ribbon edged with gold. Later a tri-coloured ribbon was used. The design on the obverse consists of several chains to which are attached

two balls and a padlock. The surrounding inscription reads *LA LIBERTE CONQUISE LE 14 JUILLET 1789* (Liberty acquired July 14, 1789). On the reverse is a crown of laurel through which passes an upright sword. It is surrounded by the inscription *IGNORANT NE DATOS NE QUISQUAM SERVIAT ENSES* (Are they ignorant that swords were given to abolish slavery?).

MÉDAILLE DES SAUVEURS DU TRÉSOR DE LA VILLE DE PARIS. On October 15, 1789, the Commune recommended that a silver medal be given to the members of the National Guard who had saved the Treasury of the City of Paris. This was called the *Médaille des Sauveurs du Trésor de la Ville de Paris*. It is oval in form suspended by a ring with a ribbon of red and blue, the colours of the city. The obverse bears the Arms of Paris with a Liberty cap and the words *MAIRIE DE PARIS* above. On the reverse is a wreath of laurel and the inscription *TRESOR DE LA VILLE SAUVE ET CONSERVE LE 15 OCTOBRE, 1789*.



Vainqueurs de la Bastille

MÉDAILLE DU COMMISSAIRE NATIONAL. The National Commissioners wore around the neck, suspended from a tri-coloured ribbon, an oval bronze-gilt decoration. This consists of a band surrounding a radiant sun and in the blue-enamelled centre, on three lines, the words *COMMISSAIRE NATIONAL* in gold lettering. The Administrators of Districts and of Departments wore from a similar ribbon an oval silver medal of 40x45 mm., with the words *RESPECT A LA LOI* in three lines, surrounded by oak wreaths. The obverse and reverse are the same.

Judging by the great variety of these Revolutionary decorations and insignia of office to be seen in the several collections in Paris, it would appear that there were few *Citoyens* who were not decorated for one cause or another. One can readily understand why the people of France so soon accustomed themselves to, and coveted, the Crosses of the Legion of Honour which Napoleon I distributed. France has always recognized the value of a visible evidence of service.

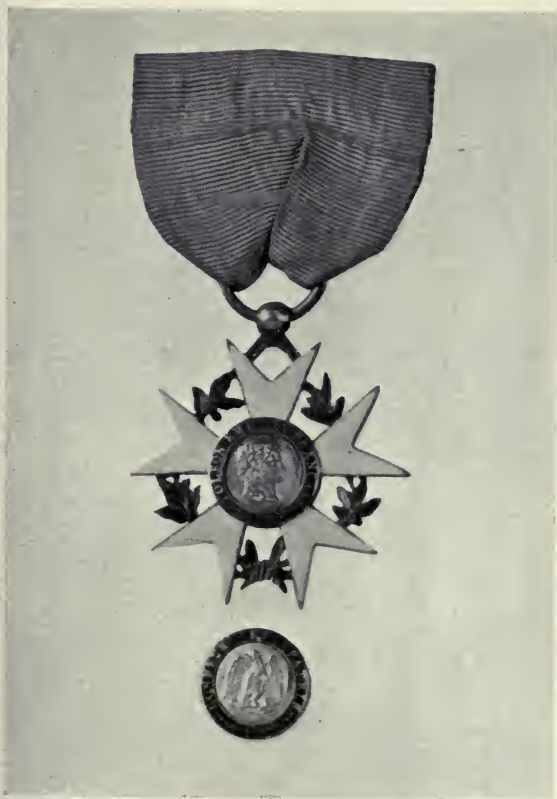
ORDRE NATIONAL DE FRANCE. This Order was projected by a Committee of the Constituent Assembly in 1789. It is cited by A.-M. Perrot as one which was soon discontinued, and by Major Lawrence-Archer as having long been dormant or extinct. The latter gives date of foundation as 1783.

The decoration is a white enamelled gold cross, with double points which are ball-tipped. Fleurs-de-lis are in each angle. In a blue medallion on the obverse are the letters *R.N.* (signifying *Récompense Nationale*). This is surrounded by a white circle inscribed *INSTITUE EN 1789*. On the reverse are two clasped hands in white on a blue field, surrounded by a white circle containing the legend *PRIX DE VERTU*. The ribbon is the tri-colour of France.

ÉTOILE DE LA LÉGION D'HONNEUR. The "Little Corsican" entered the arena of French politics and became First Consul in 1799. In May, 1802, he caused to be created the *Légion d'Honneur*, the main purpose of which was to reward *all* Citizens for military and civil services of importance. In so doing

he made it appear to the Revolutionists that there were to be no Court favorites. Sir Bernard Burke says in his work entitled *The Book of Orders of Knighthood and Decorations of Honor*, "The real object, however, of the First Consul in creating this Chivalry, to which merit of every social grade was eligible, was to popularize the idea of personal distinction, and pave the way for the establishment of the Empire, and the more exclusive titles of nobility which accompany it."

There were four grades of membership in the Order—Légionnaires (later called Chevaliers), Officers, Commandants (later called Commanders) and Grand Officers. Napoleon created a fifth grade in 1805, called Grand Eagles or Grand Crosses. There were in addition educational and charitable organizations, such as schools where children of the Légionnaires were educated and orphan boys received military training. The Decoration of the Order was originally called the Eagle, though in the form of a five armed cross. After Napoleon became Emperor it was known as the Cross



Légion d'Honneur
First Empire. First Type.

of the Legion of Honour, as the "Distribution of Crosses" at *l'Église des Invalides* on July 15, 1804, signifies. Napoleon chose the fifteenth anniversary of the fall of the Bastille for the first public distribution of the Grand Cross. But as that day happened to fall on Saturday, the ceremony was postponed until the following day, Sunday, July 15, 1804 (*le 26 messidor, an XII*). On this occasion the principal personages of the Empire were honoured with the decoration. A painting of this subject in the *Musée de Versailles* shows Napoleon on the throne attaching the Cross to the breast of a wounded veteran supported by an officer.

The next great public presentation of Crosses took place at the camp at Boulogne on August 16, 1804 (*le 28 thermidor, an XII*) in the presence of 90,000 soldiers and sailors. At this time the service men worthy of decoration were honoured with the cross⁴.

In 1814, the Legion had nearly thirty-seven thousand members; since then the number has increased greatly.

The Cross consists of a five-armed, double-pointed star of white enamel, edged with



Légion d'Honneur

First Empire.

Third Type.

gold (or silver, according to the grade). The arms are united by a wreath of oak leaves on one side and of laurel leaves on the other. In the centre on a gold-rayed medallion appears the laurel-crowned effigy of Napoleon facing to the right. On the encircling band of blue enamel appears the inscription *NAPOLEON EMP[EREUR] DES FRANÇAIS* and three stars. On the reverse is the Imperial eagle facing to the left, and on a blue enamelled border *HONNEUR ET PATRIE*, with three stars. The ribbon is red moiré. During the First Empire the first and second types of the cross had the eagle facing to the left; in the third and fourth types it faces in the opposite direction. The second type of the cross is surmounted by the Imperial crown of twelve branches, which is soldered to the points of the upper cross arms; above this is a globe with a small cross above it and within the suspension ring. In the third and fourth types the crown which is mobile has but eight branches. The cross of the fourth type is ball-tipped at the points as are succeeding varieties. In some varieties the head of



Légion d'Honneur
First Empire. Fourth Type.

Napoleon differs in size; while in one case the head faces to the left. Slight differences in the size of the wreath's leaves are also to be noticed.

RESTORATION

When Louis XVIII ascended the throne of France in 1814 after the abdication of Napoleon I and his departure for Elba, it was thought he might suppress the *Légion d'Honneur*. Such was not the case, however. Not only did he revive many of the Orders and Decorations of the Ancient Régime, but he continued the *Légion d'Honneur* although he altered the design of the decoration somewhat by substituting the fleurs-de-lis for the eagle on the reverse. The obverse was also changed—the effigy of Henry IV facing to the right replaced that of Napoleon, while on the encircling band he placed the words *HENRI IV ROI DE FRANCE ET DE NAVARRE*. This use of the effigy of a king so long deceased earned for the Order the popular cognomen “Holy Ghost.” And these crosses are often mistakenly supposed to belong to the time



Légion d'Honneur
Restauration

of Henry IV by owners who fail to remember that the Order was instituted in 1804.

Variants of this type appear. In one the crown has twelve branches; in others there are but eight. One type has fleurs-de-lis at the base of the crown branches; another type shows the fleurs-de-lis replacing the small cross on the globe within the suspension ring. In all probability there are other slight variations, but they may be considered as hardly worthy of record.

ONE HUNDRED DAYS

When in the Spring of 1815 Napoleon I returned from Elba, once more to assume the Imperial crown, he re-established the laws of 1814 as they affected the Legion of Honour. The battle of Waterloo, with its results so disastrous to his ambitions, upset all that he had done, and Louis XVIII had only to reaffirm previous laws made during the first Restoration, and these continued unchanged by Charles X until the time of Louis Philippe. None of the authorities on the subject record any material change in the Décoration of the Order.

NUMISMATIC NOTES



Légion d'Honneur
Louis-Philippe

LOUIS-PHILIPPE, 1830

After the second Revolution and the deposition of Charles X in July, 1830, Louis-Philippe (1773-1850), the son of the Duc d'Orléans, reaffirmed the *Légion d'Honneur*. He changed the inscription on the obverse to read merely *HENRI IV*; while the three fleurs-de-lis on the reverse were replaced by two crossed flags of France. Variants appear with the globe above the crown and no cross in the suspension ring. Others bear on the obverse the inscription used during the Restoration.

SECOND REPUBLIC

After the abdication of Louis-Philippe in 1848, and during the Second Republic, the cross was again altered. The crown was removed; and the manner of affixing the suspension ring was changed, the loop was attached to the wreath rather than to the globe as in the first type of the time of Napoleon I. The second marked change showed itself on the obverse, which bore the uncrowned effigy of Napoleon I facing to the right, surrounded by the words, *BONA-*



Légion d'Honneur
Second Republic

40	FRENCH ORDERS
	<p data-bbox="303 265 947 797"> <i>PARTE 1^{er} CONSUL 19 MAI 1802</i>, on a blue enamelled band. There are variants showing the <i>19 MAI 1802</i> under the bust of Napoleon, while others have <i>18 MAI 1802</i>. The reverse shows the crossed flags, and below them the words <i>HONNEUR ET PATRIE</i>; the whole is surrounded by the inscription <i>REPUBLIQUE FRANÇAISE</i> on a blue enamelled band. Variants of the reverse have <i>HONNEUR ET PATRIE</i> encircling the centre medallion instead of <i>REPUBLIQUE FRANÇAISE</i>, and on the second the two flags tied with a ribbon. </p> <p data-bbox="500 835 746 863">SECOND EMPIRE</p> <p data-bbox="303 885 947 1334"> After having been President of the Second Republic for about three years, Charles Louis Napoleon (the third son of Hortense Beauharnais and Louis Bonaparte, King of Holland) was declared Emperor of France on December 2, 1852, and recognized as Napoleon III. A complete restoration of the <i>Légion d'Honneur</i> to the original design followed almost immediately. The Imperial Crown of eight palm branches with an eagle at the base of each branch was authorized. </p>
	NUMISMATIC NOTES



Légion d'Honneur
Second Empire

It is surmounted by a globe and has a cross within the suspension ring. It is these eagles which distinguish the cross of the Second Empire from that of the First. The medalion too was changed; the obverse bears the effigy of Napoleon I crowned with laurel, facing to the right. It is surrounded by the words *NAPOLEON EMPEREUR DES FRANÇAIS*; a variant has the abbreviation, *EMP*. The reverse is almost identical with the cross of the fourth type of the First Empire save that in this type the eagle faces right, rests on a thunderbolt and holds six crossed arrows, while the three stars in the lower part of the blue band are replaced by two laurel branches. On Plate XV the decoration shown is that of an officer of the Legion.

There is such a similarity between the two types that the cross of the Second Empire is frequently confused with that of the time of Napoleon I. It was the fortunate discovery of a cross of this type in a Paris pawn-shop in 1899 which led to the author's collecting these interesting and beautiful objects.

THIRD REPUBLIC

With the declaration of the Third Republic, on September 4, 1870, a complete and decided change was made in the *Étoile de la Légion d'Honneur*. By a decree of the 8th of November, 1870, the Government of the National Defence ordered that the Imperial crown above the cross be replaced by a wreath of oak and laurel leaves. The effigy of Napoleon I in the centre medallion was replaced by a laurel-crowned female head facing to the right, typifying the Republic. It is surrounded by the inscription *REPUBLIQUE FRANÇAISE 1870*. The reverse has two tri-colours tied at the staffs, and surrounded by *HONNEUR ET PATRIE* and two branches of laurel on a blue enamelled band. In the Commander's cross of this period several red holly berries are to be seen on each wreath. A variant of this cross occurred in a sale in Paris during 1914, showing a crown instead of the wreath above. There seems to be no authority for these variants, and it is to be assumed that they are merely the result of the maker's idea or his carelessness as to details.

As at the beginning, the ribbon today is the bright red moiré decreed by the first Napoleon, who is said to have won many faithful followers by his lavish distribution of the "eagle" and the red ribbon. As Pliny the elder wrote (Lib. IV, cap. xi, 24) "It requires lemon as well as sugar to make punch." So with the principal decoration of France. The ribbon together with the cross is needed to perfect the attractiveness of the *Légion d'Honneur*. The brilliancy of the ribbon, the whiteness of the enamelled cross and the blue band of the medallion, blend into a harmonious whole, whose elements are those of the flag of the nation. One might go further and see in the green wreath a suggestion of the colouring of their well kept fields and vineyards, and in the oak the strong spirited loyalty to their land.

DAMES DE LA LÉGION D'HONNEUR. Napoleon I established three Schools for the orphans of the Légionnaires as early as 1805. These were at Saint-Denis, Écouen and Les Loges. The direction thereof was under the Grand Chancellor of the Legion of Honour,



Légion d'Honneur
Third Republic

but the Chapels and the Educational management were under the jurisdiction of the Bishop of the diocese.

Some writers record that as early as 1809 Napoleon intended to establish a special form of Decoration for the women in charge of the *Maisons d'Éducation de la Légion d'Honneur*. Nothing seems to have been accomplished, however, and it was not until 1816 that a Decoration was created by Louis XVIII. This consists of a white enamelled cross pattée surmounted by a Royal Crown. In the angles of the cross are fleurs-de-lis. On the obverse centre in an oval medallion is a gold figure of the Virgin on a blue field, surrounded by the words *MAISON ROYALE DE ST. DENIS*. On the reverse centre of blue are three gold fleurs-de-lis surrounded by the inscription *DIEU LE ROI LA PATRIE*. The ribbon is white moiré with red bands. The decorations of the first class are of gold and were for the nuns and higher teachers. The second class, of silver, was for the novices.

In 1857, under Napoleon III, the decoration was changed. Between the arms of the



Dames de la Légion d'Honneur

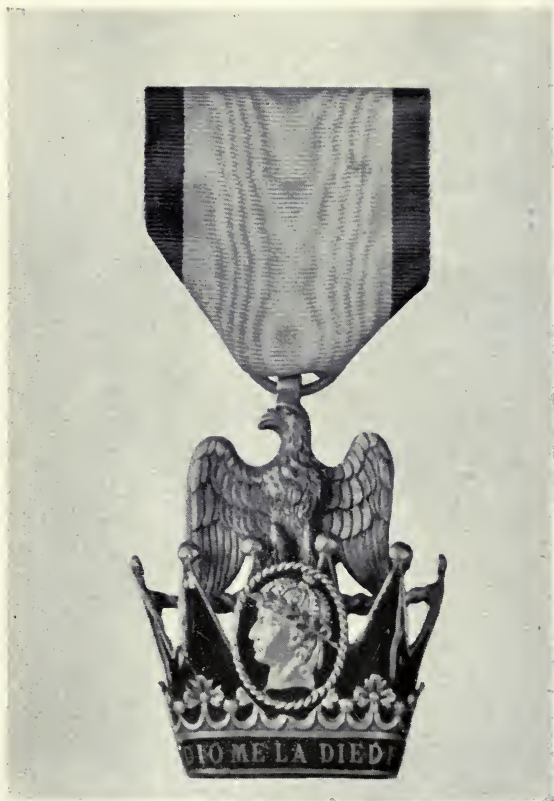
cross are rays instead of the earlier fleurs-de-lis. The inscription on the obverse reads *MAISON DE ST. DENIS*. The reverse medallion has in its centre the words *HONNEUR ET PATRIE* surrounded by the inscription *LEGION D'HONNEUR* on a white enamelled band. The ribbon was changed to red moiré.

In 1881 the decoration was changed to a cross with five branches instead of four. The cross is surmounted by the *Palmes d'Académie*. The medallion in the centre is circular and bears on the obverse in gold letters, the words *LEGION D'HONNEUR*. It is surrounded by a band inscribed *MAISON D'EDUCATION*. On the reverse is the motto *HONNEUR ET PATRIE* in gold letters on a blue field. The ribbon is also red moiré.

There is also a *Médaille d'Honneur* which is for lesser distinction. It is oval in form, bearing in the centre the Cross of the *Légion d'Honneur*. Above it, the motto *HONNEUR ET PATRIE* appears—below, *MEDAILLE D'HONNEUR*. It is surmounted by a suspension ring.

ORDRE DE LA COURONNE DE FER.
Instituted by Napoleon I on June 5, 1805, after he had been crowned at Milan as King of Italy. It was given to those who had rendered service to the Crown whether in the Army, in the Administration, or in Arts and Letters. The insignia consists of the crown of Lombardy of blue enamelled gold; it has ten ball-tipped points and ten flowers and jewels above the head band. Within the crown on a thunder-bolt is the Imperial eagle, facing to the left. Superimposed on the crown in a medallion is the effigy of Napoleon I, facing to the left, with the Imperial crown and a laurel wreath (green enamel) upon the head. The inscription on the band reads *DIO ME LA DIEDÉ GUAIA CHI LA TOCCA* (God gave it to me, Let him who touches it beware.) The ribbon is yellow moiré with a narrow green edging.

This Order was evidently given to French citizens, as the author has a plaque with the inscription in French. Variants show the head of Napoleon facing to the right. After the fall of the French Empire and the annexation of Lombardy by Austria, the



Ordre de la Couronne de Fer

Emperor, Francis I, reconstituted the Order in 1815, but with an Austrian eagle and of course a different crown. This was known as the Austrian Order of the Iron Crown.

ORDRE DES TROIS TOISONS D'OR. This Order was projected by Napoleon I and his plans for it were announced on August 15, 1809, at the camp of Schönbrunn. There seems to have been no decoration definitely established. The authorities on the subject give no description, and the Order probably never went beyond the initial stages. Specimens of the decoration of the Order of the Three Golden Fleeces are sometimes seen, but their appearance is such as to make their genuineness doubtful.

PALMES UNIVERSITAIRES. When the University of France was created on March 17, 1808, three honorary titles were established—Dignitaries, Officers of the University and Officers of the Academy. At first, the emblems of their distinction, the *Palmes Universitaires*, were embroidered on the coat. Later, silver enamelled palm and



Palme Universitaires

laurel branches were adopted, to be suspended by a violet moiré ribbon, and this procedure has continued ever since.

ORDRE DE LA RÉUNION. Founded by Napoleon I in October, 1811, to replace a similar order of Holland when that country was annexed. The decoration is in the form of a white enamelled star with twelve ball-tipped points. This star is superimposed on a gold disc formed by thirty arrows in bundles of five—the arrows representing the thirty Departments of Italy which had been annexed at the same time. The heads of the arrows occupy six of the spaces between the points of the star, while the butts fill the other (upper) six; the whole having the effect of a sun-burst. On the gold band at either side of the point of suspension appears the motto *A JAMAIS*. On the obverse medallion is a throne surmounted by an eagle holding in one claw nine arrows, to represent the Provinces of Holland; in the other he holds a trident, to signify the ports of Genoa and Hamburg. On one side of the throne appears the lion of Holland; on the



Ordre de la Réunion

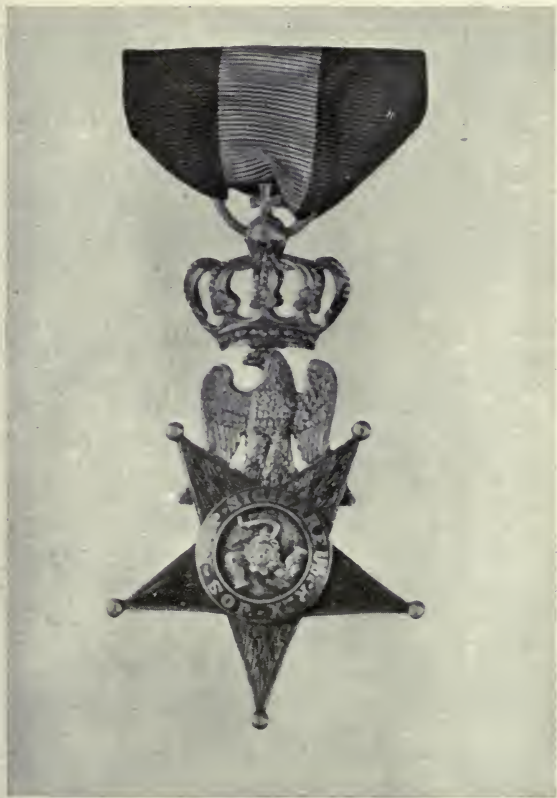
other, the lion of Florence, and at the base of the throne is the she-wolf of Rome, showing quite clearly the figures of Romulus and Remus. Around this appears the motto *TOUT POUR L'EMPIRE* on a blue enamelled band. The reverse shows *N* within a laurel wreath, and *A JAMAIS* on a blue band surrounding it. The words are repeated on both sides on the outer band. Above this star is the Imperial crown, with the words *NAPOLEON FONDATEUR* on the blue head band. A gold cross is within the suspension ring. The ribbon is light blue with lateral bands of white. This Order was suppressed in 1815 after only four years of existence.

Several other Orders created under the Napoleonic influence should be mentioned at this juncture.

ORDRE DE L'UNION DE HOLLANDE. Created by Louis Bonaparte (1778-1846) in 1806. After passing through several modifications, its name was changed in 1807 to the *Ordre Royal de l'Union de Hollande*. The cross is an eight-pointed gold star, white enamelled and with ball-tipped points.

Gold bees are in the angles and a gold crown surmounts it. On the obverse appears the effigy of the King, surrounded by the words *LODWIJK NAP. DE I^a KONING VAN HOLLAND*. The reverse has the lion of the Netherlands, and the legend *DOE WEL EN ZIE NIET OM* (Do well and look not around). The ribbon is light blue moiré. This Order was abolished in 1810, and those who had been favoured with the decoration were given that of the Order of the Reunion of France, created by Napoleon I in 1811.

MÉDAILLE D'HONNEUR DE HOLLANDE. This medal was authorized on July 18, 1808, by Louis Bonaparte—or Louis Napoleon, as he is frequently called. The object of this was to reward acts of bravery. It was issued in two classes, gold and silver. The medal is 45 mm. in diameter. Around the sides are laurel wreaths. In the centre of the obverse is engraved *BELONING VAN UTMUNTENDE DAPPERHEID, 14 SEPT. 1809* (Reward for Distinguished Bravery). On the reverse is engraved *LODEWIK NAP. DE I^a KONING VAN HOLLAND AAN*—



Ordre Royal des Deux Siciles

58	FRENCH ORDERS
	<p>(the name of the recipient). The ribbon for this is light blue.</p> <p>ORDRE ROYAL DES DEUX SICILES. Founded by Joseph Bonaparte (1768-1844), King of Naples, on February 24, 1808. It consists of a red enamelled star of five points with ball tips and gold edges, above which is an Imperial eagle; the whole is surmounted by a crown with a cross within the suspension ring. On the gold ground of the obverse medallion is the prancing horse of Naples, surrounded by a blue band inscribed <i>PRO RENOVATA PATRIA</i>. Against the gold background of the reverse medallion is the Sicilian Triquetra with a face in the centre, and on the encircling band is the legend <i>JOS. NAP. SICILIARUM REX</i>. The ribbon is dark blue with a red stripe in the centre. Authorities give different inscriptions for the reverse—<i>JOS. NAPOLEO. SICILIAE REX INSTITUIT</i>; <i>JOSEPH NAPOLEO SICIL. REX INSTITUIT</i>; <i>JOS. NAPOL. SIC. REX INSTITUIT</i>. This Order was continued during the reign of Murat, and until 1815 when Ferdinand IV regained</p>
	NUMISMATIC NOTES

the throne of his kingdom. It was modified by this king, but abolished in 1819 when the Order of Saint George of the Reunion of Sicily was established.

MÉDAILLE D'HONNEUR (Naples). After Murat (1767-1815) became King of Naples in 1808, he authorized a *Médaille d'Honneur* for the Provincial Legion. This was issued on March 26, 1809. It is of silver and is 38 mm. in diameter. On the obverse is the effigy of the King facing to the left, surrounded by the words *GIOACCHINO NAPOL. RE DELLE DUE SICIL.* On the reverse is a group of fourteen flags and a crown, with the inscription *ALLE LEGIONI PROVINCIALI LI 26 MARZO 1809.* The ribbon is light blue.

ORDRE ROYAL D'ESPAGNE. Joseph Bonaparte (1768-1844) created this Order in 1809. The insignia is similar in design to the Royal Order of the Two Sicilies but without the eagle and crown. It is suspended by a ring attached to one star point. On the obverse appears the tower of Castile and the

words *JOS. NAPOLEO REX HISP. ET IND.* The reverse has the lion of Aragon and the motto *VIRTUTE ET FIDE*. The ribbon is red moiré.

ORDRE DE LA COURONNE DE WEST-PHALIE. Instituted when Jérôme Bonaparte (1784-1860) was King of that Principality, by a decree dated from Paris on December 25, 1809. It was created for the purpose of rewarding both soldiers and civilians for services of importance. There are four classes—Grand Commanders, Commanders, Chevaliers of the first class and Chevaliers of the second class. The decoration consists of a gold crown of eight fleurons, with a blue enamelled head-band bearing the motto of the Order, *CHARACTER UND AUFRIKKEIT. ERRICHTET DEN XXV DECEMBER MDCCCIX* (Dignity and candour. Founded December 25, 1809). One authority, however, gives this motto as *CHARACTER UND AUFRICHTIGKEIT—ERRICHTET DEN XXV DEC. MDCCCIX*. Above the crown in the centre, an eagle and a lion stand back to back beneath another

crown. At the right is the horse of Westphalia, and to the left is the lion of Hesse. The Imperial Eagle standing on a thunderbolt, bearing the words *JE LES UNIS* (I united them), surmounts the whole. The reverse is the same except that on the lion and eagle there is a shield upon which the letters *H.N.* are interlaced. The suspension ring is in the form of a serpent with its tail in its mouth—a symbol of immortality. The ribbon is black with yellow borders.

MÉDAILLE D'HONNEUR (Westphalia). Created by Jérôme Bonaparte on June 17, 1809, for sub-officers and soldiers who had served at least ten years and who had distinguished themselves while in the service. This medal is of silver, oval in form, and bears on the obverse a trophy of arms and military equipment. Surrounding this are the words *TAPFERKEID UND GUTES BETRAGEN*. On the reverse is the Royal cipher *J.N.*, crowned, and the date of the foundation, 1809. The whole is enclosed by a wreath of oak and laurel leaves. The ribbon is sky blue.

A third class medal was also issued in bronze, of the same design, and suspended by a sky blue ribbon with white edges.

DÉCORATION DU LIS. During the early days of the first Restoration, upon his arrival in Paris on April 12, 1814, the Count d'Artois (later Charles X. 1824-1830) caused to be distributed to the National Guard of that City, white ribbons, which were to be worn as a badge of fidelity. To perpetuate the remembrance of this distribution, they were later granted the right to suspend from the ribbon a silver fleur-de-lis. For his attendants this device was surmounted by a Royal crown. Such was the origin of the *Décoration du Lis*, sometimes called the Order of the Lily. The form of the lily, as well as the design of the ribbon, varies with each Department of France. They are generally to be seen with a white moiré ribbon. Monsieur A.-M. Perrot illustrates in his *Ordres des Chevalerie*, 1820, eighty varieties of ribbons for this decoration. Occasionally one sees a design with a shield bearing the effigy of the King. There was



Décoration du Lis

also used a cross of four arms with a fleur-de-lis in each angle. The centre medallion has one fleur-de-lis and the words *VIVE LE ROI*. This Decoration disappeared in 1830.

LYS DES GARDES DU CORPS. It consists of a gilt sunburst surmounted by a Royal Crown. In the centre is an effigy of Louis XVIII, surrounded by a blue enamelled band inscribed *VIVE LE ROI*. On the reverse is a silver fleur-de-lis and the legend *GAGE D'UNION*. The ribbon is white with blue edges. Variants of this emblem appear; one has merely a silver fleur-de-lis on each side, while another has the motto *HONNEUR ET PATRIE* on the reverse.

DÉCORATION DE BRASSARD DE BORDEAUX. This decoration was adopted for the volunteers who accompanied the Duc d'Angoulême (the elder brother of Charles X.) when he entered Bordeaux on March 12, 1814. It was officially called *Brassard de Bordeaux*, or *Brassard Vert*. At first it consisted of a silk band of green with white borders, worn, as the name signifies, on the

arm. Some are all green, others white with green borders. On this band is embroidered a heart and the inscription *BORDEAUX 12 MARS 1814*. Later, another form was adopted. This consists of an oval gilt sunburst on which is superimposed an oval medallion of white enamel bearing the royal monogram *L.L.*, and surrounded by a green enamelled band with the words *BORDEAUX 12 MARS 1814*. The whole is surmounted by the royal crown. The reverse is the same. The ribbon is green with white edges. This decoration was discontinued after the revolution of 1830.

DÉCORATION DU LYS DE BAYONNE.

While not official, this decoration was worn by the National Guard of the city of Bayonne in remembrance of its part in the defence of 1814 against the troops under the Duke of Wellington. It is an oval silver medal in the form of a sunburst, having at the centre a convex white-enamelled medallion. On this is the Arms of the City of Bayonne, surrounded by the motto *NUM-QUAM POLLUTA* (Never dishonoured). The

reverse has a silver fleur-de-lis, a crown and the words *A LA GARDE NATIONALE DE BAYONNE*. The ribbon is white.

DÉCORATION DES VOLONTAIRES ROYAUX. Carried by the pupils of the Law School and of the Medical School who had organized themselves into a battalion and had accompanied King Louis XVIII to Ghent during the Hundred Days. The decoration consists of a silver white-enamelled cross of four branches, ball-tipped. The whole is surmounted by a crown. In the centre medallion of gold is the effigy of the King, surrounded by a band inscribed *DIEU LE ROI ET LA PATRIE*. The reverse medallion of red has the date *1815* surrounded by *VOLONTAIRES ROYAUX*. The ribbon is white with two red lines on either side.

DÉCORATION DE L'AIGLE. When Napoleon I returned to Paris from Elba and re-established the Empire for *les Cent-Jours* (from March 20 to June 28, 1815), an insignia was issued called the *Décoration de*



Décoration de l'Aigle

l'Aigle. The object of this was to distinguish his supporters from those of Louis XVIII who wore the *Décoration du Lys*. The badge consists of an eagle surmounted by a crown, holding in its beak a fillet on which is impressed the date 1815. No authority for this decoration has been found, and it is hardly proper to consider it official.

CROIX DE LA FIDÉLITÉ. Authorized on February 5, 1916, to replace the Decoration of the Lily. It was given to those who were faithful to Louis XVIII upon the abdication of Napoleon I. The insignia is a white enamelled silver star of five points, ball-tipped, surmounted by a fleur-de-lis and the Royal crown, with a smaller fleur-de-lis within the suspension ring. At the centre of the obverse, a gold medallion bears the effigy of the King, facing to right. The medallion is surrounded by a blue band inscribed *Fidélité Dévouement*. The reverse medallion displays a silver fleur-de-lis on a gold ground surrounded by a blue band inscribed 12 AVRIL, 3 MAI 1814, 19 MARS, 8 JUILLET, 1815. The ribbon consists



Croix de la Fidélité

70	FRENCH ORDERS
	<p>of three bands equal in width, that in the middle being white, the outer ones, blue.</p> <p>DÉCORATION DE JUILLET 1830. When the people of France revolted on July 27, 28 and 29, 1830, against those who had violated the Constitution, the Chamber of Deputies placed Louis Philippe, Duc d'Orléans, a member of the younger house of the Bourbons, on the throne. To reward the citizens who had distinguished themselves during those three famous days, the <i>Croix de Juillet</i> was authorized by the decree of December 13, 1830. Although called a cross, it has but three double pointed arms which are ball-tipped. It is on a wreath of oak leaves and surmounted by a mural crown. At the centre of the obverse, are red, white and blue enamelled bands encircling the Gallic cock, with the words <i>PATRIE ET LIBERTE</i> on the red band. The reverse is similarly banded with <i>27, 28, 29 JUILLET</i>, in three lines on the blue centre, <i>1830</i> on the white band and <i>DONNE PAR LE ROI DES FRANÇAIS</i> on the outer band of red. The ribbon is sky blue, edged with red.</p>
	NUMISMATIC NOTES



Décoration de Juillet, 1830

72	FRENCH ORDERS
	<p>There are several variants of this decoration. On one there is no crown above the cross and the inscription 27,28,29,<i>JUILLET</i>, appears on the red band, while 1830 is in the blue centre. The reverse has <i>PATRIE ET LIBERTE</i> on the red band with <i>DONNE PAR LA NATION</i> in the blue centre. Another variant is composed of three enamelled tricoloured flags instead of the cross, while the centre is a reproduction in miniature of the silver medal next described.</p> <p>MÉDAILLE DE JUILLET. This medal was also authorized and is in silver. On the obverse appears the Gallic cock of France standing on a flag within a wreath of oak leaves, around which are the words <i>A SES DEFENSEURS LA PATRIE RECONNAISSANTE</i> (A grateful country to its defenders). On the reverse are three laurel wreaths intertwined, encircling the dates 27, 28, 29. Beneath, <i>JUILLET 1830</i>; above, <i>PATRIE ET LIBERTE</i>. On the edge of the medal, <i>DONNE PAR LE ROI DES FRANÇAIS</i>. The ribbon is red, white and blue.</p>
	NUMISMATIC NOTES

MÉDAILLE DES BLESSÉS DE 1848. After the Revolution of 1848 and the abdication of Louis Philippe, General Cavaignac submitted to the Assembly the desirability of issuing a medal to reward those who were wounded at that time. This does not seem to have been adopted by the Legislative authorities. There was, however, a medal made and issued called the *Médaille des Blessés de 1848*. This may have been devised by a society of the veterans of that eventful occasion. The medal is of silver, 20 mm. in diameter. On the obverse appears the figure of a woman with a helmet on her head. Her right hand holds a flag, and the left a fasces. The words *REPUBLIQUE FRANÇAISE* appear on the face. The reverse has within an oak wreath 22, 23, 24 *FEVRIER, 1848*; and outside the wreath, *BLESSE POUR LA LIBERTE*, and the name of the recipient. The ribbon is red, with a blue and a white stripe on one side only.

MÉDAILLE DES VICTIMES DU 2 DÉCEMBRE 1851. This decoration was of the same class as the *Médaille des Blessés de*

74	FRENCH ORDERS
	<p>1848. The obverse is the same but the reverse has the words <i>VICTIME DE 2 DECEMBRE 1851</i> within an oak wreath, while around the edge appears in relief <i>DEFENSEUR DU DROIT</i>, and engraved below is the name of the one to whom the medal was awarded. One in the author's collection bears the name "Vve. Benjamin Colin." The ribbon is like that described above—red, with a white and a blue stripe on one side only.</p> <p>MÉDAILLE DE 1849. After defeating Garibaldi at Rome in 1849 and holding that city for the Pope, the French troops taking part in the campaign were rewarded by the Papal authorities with the <i>Médaille de 1849</i>. This was a round medal of 30 mm. and was issued in gold, silver and bronze. On the obverse are the Pontifical emblems, surrounded by a wreath of laurel and the words <i>SEDES APOSTOLICA ROMANA</i>. The reverse bears the inscription in five lines, <i>PIUS IX PONT. MAX. ROMAE RESTITUTUS CATHOLICIS ARMIS COLLATIS. AN. MDCCCXLIX</i> (Pius IX Pontifex Maxi-</p>
	NUMISMATIC NOTES

AND DECORATIONS	75
<p>mus restored to Rome by the Armies of the United Catholics). This is suspended by a white ribbon with a yellow stripe in the centre.</p> <p>CROIX DE MENTANA. Authorized by Pope Pius IX in 1867. This was to reward troops that had taken part in the defence of the Holy City and assisted the Church of Rome. This decoration was recognized and accepted by the French Government in 1868; and Frenchmen who were entitled to it were permitted to wear the cross under the same conditions as the British medals for the Baltic, and the Turkish and British medals for the Crimean campaigns. It is a silver four-armed, eight-pointed cross. On the obverse are the Pontifical emblems at the centre with the words <i>FIDEI ET VIRTUTI</i>. On the arms of the cross is the inscription <i>PP PIUS IX 1867</i>. On the reverse medallion is a cross and laurel wreath with the words <i>HINC VICTORIA</i> above. The ribbon is white with two blue stripes.</p>	
AND MONOGRAPHS	

MÉDAILLE MILITAIRE. Authorized on January 22, 1852, during Prince Louis Napoleon's Presidency of the Second Republic. It was issued for bravery and long service in the army and navy to junior officers and enlisted men. This decoration ranks with the Distinguished Conduct Medal of England. It is now also awarded to men of the allied forces. It consists of a silver-gilt wreath of laurel leaves, tied at the base and at the top with narrow gilt fillets. In the centre of the obverse on a gilt ground, is the head of Louis Napoleon facing to the left, and around this on a blue enamelled band, the words *LOUIS NAPOLEON*. The reverse bears the inscription *VALEUR ET DISCIPLINE*. The whole is surmounted by a gilt Imperial Eagle with head to the right, holding in its claws a thunder-bolt. On the reverse the tail of the eagle extends over the blue enamelled band and the wings are attached to the silver-gilt wreath. In a second model, the lightning-arrows are more pronounced and the eagle's tail falls short of the centre band. The wings too are free from



Médaille Militaire

Second Republic

First type

78	FRENCH ORDERS
	<p>the wreath, and the entire piece is somewhat thicker than the first type.</p> <p>On November 8, 1870, just fifty-five days after the proclamation of the Third Republic and the downfall of Napoleon II, a decree was issued modifying the <i>Médaille Militaire</i>. The centre of the obverse displays the head of Ceres. On the encircling band are the words <i>REPUBLIQUE FRANÇAISE 1870</i>. The reverse centre is unchanged. The eagle is replaced by a trophy of arms and an anchor. These are the same on each side, and are fastened to the laurel wreath. In a still later type the trophy of arms is plain on the reverse and is attached to the medal by a ring under the anchor so that it is movable. There is also a slight variation in the way the hair of Ceres is tied. The ribbon has always been the same—orange, edged with green.</p> <p>An interesting variant of the <i>Médaille Militaire</i> was adopted to reward the Annamite troops who were worthy of distinction. It consists of a round silver medal, surmounted by a dragon and two crossed Chinese swords. In the centre are Chinese</p>
	NUMISMATIC NOTES



Médaille Militaire
Third Republic Second Type

80	FRENCH ORDERS
	<p>characters equivalent to the reverse inscription, <i>PROTECTORAT DE L'ANNAM ET DU TONKIN VALEUR ET DISCIPLINE</i>, surrounded by oak and laurel leaves.</p> <p>ORDRE DU MÉRITE AGRICOLE. This Order was established on July 7, 1883, to reward those who had distinguished themselves in agricultural development. The decoration consists of a six-pointed, white-enamelled star superimposed upon a wreath of olive leaves. In the centre is the head of the Republic, surrounded by a blue band inscribed <i>REPUBLIQUE FRANÇAISE</i>. The reverse gold centre has the words <i>MÉRITE AGRICOLE 1883</i>, in three lines. The ribbon is green, edged with red.</p> <p>MÉDAILLE DE SAINTE-HÉLÈNE. Napoleon III instituted on August 12, 1857, a bronze medal to reward all living soldiers and sailors who had fought for France from 1792 to 1815. It is an oval bronze wreath with a crown above, and has in the centre the effigy of Napoleon I facing to right, and the words <i>NAPOLÉON I EMPEREUR</i>. On</p>
	NUMISMATIC NOTES



Mérite Agricole

the reverse is the inscription, *CAMPAGNES DE 1792 A 1815 A SES COMPAGNONS DE GLOIRE SA DERNIERE PENSEE. SAINTE-HELENE 5 MAI 1821*. The ribbon is dark green with seven narrow red stripes. While this is officially styled the *Médaille de Sainte-Hélène*, it is frequently mentioned as the Medal for Napoleon's Veterans. When Napoleon III adopted the *Médaille de Sainte-Hélène*, it was the first time that any medal or decoration had been given to the rank and file of service men to distinguish their having been in the armed forces of France. Although no service medals were authorized by France for her soldiers and sailors who had served in the Crimean War, the Governments of England, Italy and Turkey distributed medals similar to their own to some of the French troops.

MÉDAILLE D'ITALIE. Authorized by Napoleon III by a decree dated August 11, 1859, to reward all troops who had served in the campaign in Italy. It is a silver medal consisting of a wreath of laurel branches tied at the four points, forming the rim of the



Médaille de Sainte-Hélène

medal. In the centre is the effigy of the Emperor facing to the left, surrounded by the words *NAPOLEON III EMPEREUR*. On the reverse are the names of the battles, *MONTEBELLO PALESTRO TURBIGO MAGENTA MARIGNAN SOLFERINO*, and the legend *CAMPAGNE D'ITALIE 1859*. The ribbon has red and white stripes, seven of the former and six of the latter.

MÉDAILLE DE CHINE. The expedition to China in 1860 was soon followed by a similar reward of service. On January 23, 1861, a decree was issued authorizing this medal. The obverse is similar to the medal for Italy. The reverse bears on the outer edge, *EXPEDITION DE CHINE 1860*, and in the centre are inscribed the names of the engagements, *TA-KOU, CHANG-KIA-WAN PA-LI-KAO PE-KING*. The ribbon is yellow, bearing on the face the Chinese characters signifying Pe-King.

MÉDAILLE DU MEXIQUE. Following the Expedition to Mexico of 1862-1863, another silver medal was authorized on

August 29, 1863. This followed the previous medals as to the obverse. The reverse bears the inscription *EXPEDITION DU MEXIQUE 1862-1863*, and the names of the engagements, *CUMBRES CERRO-BORREGO SAN-LORENZO PUEBLA MEXICO*. The ribbon is white silk with red and green rays, crossed, and surmounted by the Mexican eagle, holding a snake.

MÉDAILLE DE LA GUERRE DE 1870-1871. The Frenchmen who took part in the Franco-Prussian war and served in France and Algeria during the years 1870-1871, received no insignia whatever from their Government to testify to their service until 1911. Just forty years after the Treaty of Peace with Germany, a silver medal was authorized called the *Médaille de la Guerre de 1870-1871*. This was given to all living veterans who had served under the tri-colour in that war. The medal bears on its face the head of the Republic and the words *REPUBLIQUE FRANÇAISE*. On the reverse is a trophy of arms with the inscription *AUX*

DEFENSEURS DE LA PATRIE on a tablet below, and the date 1870-1871 above. The ribbon is green and black stripes. The volunteer troops in this war are allowed to wear on the ribbon a bar inscribed *Engagé Volontaire*.

In 1885, and following all other campaigns and expeditions in which the army and navy of France took part, silver medals were authorized. Space would hardly allow all these to be described in detail. They are given below in the order of their issuance:

MÉDAILLE DU TONKIN. For the expedition to China and Annam in 1883, 1884 and 1885. On the reverse appear the names of the engagements *Sontay, Bac-Ninh, Fou-Tchéou, Formose, Tuyen-Quan, Pescadores*. The medal for the men of the Navy, in this campaign has, in addition, the engagement, *Cau-Giai*, which precedes the others. The ribbon is yellow with four green stripes.

MÉDAILLE DE MADAGASCAR. For the expedition of 1885. Ribbon light blue and green, in longitudinal stripes.



Médaille de 1870-71

MÉDAILLE DU DAHOMEY. For services in that section in 1892. Ribbon yellow and black stripes.

MÉDAILLE COLONIALE. For services in Africa and the Colonies. This was authorized in 1893, and many bars were given for the different engagements. The ribbon is light blue, with one wide and two narrow white stripes. Gold bars were given for *De l'Atlantique à la mer Rouge* (The Marchand expedition), *Mission Saharienne*, *Congo-Gabon*, and *Centre-Africain*. The bars of silver were for *Adrar*, *Afrique occidentale Française*, *Algérie*, *Centre-Africain*, *Cochinchine*, *Comores*, *Congo*, *Côte d'Ivoire*, *Côte d'Or*, *Dahomey*, *Guinée Française*, *Guyane*, *Haut-Mékong*, *Haut-Oubanghi*, *Iles de la Société*, *Iles Marquises*, *Laos et Mékong*, *Madagascar* (the second Campaign), *Mauritanie*, *Nossi-Bé*, *Nouvelle Calédonie*, *Sahara*, *Sénégal et Soudan*, *Tchad*, *Tonkin*, *Tunisie* and *Maroc*.

MÉDAILLE DE MADAGASCAR. For the second expedition of 1894-1895, and 1896.

MÉDAILLE DE CHINE. For those who took part in the defence of the legations in Peking

in 1900-1901. Ribbon green and yellow stripes.

MÉDAILLE DU MAROC. Authorized in 1909, for all who took part in the military operation in that country, or in protecting property there. The ribbon for this is similar to the *Médaille Coloniale*, but in green with one wide and two narrow white stripes. The bars given with this medal are for *Casablanca*, *Oudjda*, *Haut-Guir*, *Fez*; and many others have since been added.

CROIX DE GUERRE. By the law of the 8th of April 1915, a bronze cross was authorized to reward Officers and men of all ranks of the army and navy of France and of the Allied forces who were mentioned in despatches. This was called the *Croix de Guerre*. The decoration is a bronze cross with plain edges. The hilts of two crossed swords fill the lower angles; the points, the upper. In the centre medallion is the head of Ceres facing to the right, surrounded by a band inscribed *REPUBLIQUE FRANÇAISE*. On the reverse is the date 1914-1915. In later types, this was changed each year of

90	FRENCH ORDERS
	<p>the war as follows, 1914-1916, 1914-1917, 1914-1918. The ribbon is dark green with seven red stripes, the same as used for the <i>Médaille de Sainte-Hélène</i>.</p> <p>“The different classes of despatches for which a recipient was awarded the Cross may be recognized by the following embellishments attached to the ribbon:</p> <p>Army Despatch. Small bronze laurel branch (<i>Palme en bronze</i>).</p> <p>Army Corps Despatch. Silver-gilt star.</p> <p>Divisional Despatch. Silver star.</p> <p>Brigade, Regimental or similar unit Despatch. Bronze star.</p> <p>“Every time a man is mentioned in despatches, he receives a corresponding sign. Thus, a man may wear the Cross with, say, the silver star and the <i>Palmes en bronze</i>. When the ribbon of the <i>Croix de Guerre</i> is worn in undress uniform, the appropriate embellishment in miniature is worn on the ribbon. When a recipient of the <i>Croix de Guerre</i> has been awarded five <i>Palmes en bronze</i> he wears instead a silver <i>Palme</i>.”</p>
	NUMISMATIC NOTES



Croix de Guerre (avec palme)

92	FRENCH ORDERS
	<p>CROIX DE GUERRE DES THÉÂTRES D'OPÉRATIONS EXTÉRIEURES. This decoration was instituted by a decree of April 30, 1921, to reward those of the Army, Navy and civil affairs who had shown exceptional efficiency in their service to the country or its colonies after the signing of the Armistice, especially outside the war zone of France and Belgium. The cross is similar to the <i>Croix de Guerre</i>, except that the reverse medallion has the inscription <i>THÉÂTRES D'OPÉRATIONS EXTÉRIEURES</i>. The ribbon is sky blue edged with broad red bands. The bestowal of this honour carries with it the same privileges as to subsequent citations as does the <i>Croix de Guerre</i> with respect to the wearing of the <i>Palme en bronze</i> or the <i>Étoile d'argent</i>.</p> <p>It ranks with that cross which should be worn immediately following the <i>Médaille Militaire</i>; in case of both, this cross should follow the <i>Croix de Guerre</i> of 1914-1918.</p> <p>MÉDAILLE DE LA GRANDE GUERRE, 1914-1918. In the issue of January 29, 1921, of <i>L'Illustration</i>, Paris, is a represen-</p>
	NUMISMATIC NOTES

tation of the medal designed by Alexandre Morlon. This was awarded first prize in the competition for the War Medal of the World War. The obverse bears a symbolic head of France, wearing a trench helmet—a modern Minerva, facing to the left. The left hand is holding a sword. Laurel wreaths are on the shoulder. The reverse has in the centre in three lines, *GRANDE GUERRE 1914-1918*. Around this, with letters resting on an oak and laurel wreath is the inscription *REPUBLIQUE FRANÇAISE*. The suspension ring or loop is very broad, and attached to the medal by sprigs of laurel. Under the law of June 28, 1920, this Medal is to be awarded to all who served in the Army and Navy between August 2, 1914, and November 11, 1918 including the various organizations working with them.

MÉDAILLE DE VICTOIRE. At this writing it has been impossible to obtain a specimen or an authentic description of the Victory Medal of France. Owing to the delay of the authorities in issuing this,

94	FRENCH ORDERS
	<p>some manufacturers of medals in Paris have issued one, but this is not official.</p> <p>It is of bronze, bearing on the obverse the winged figure of Victory. In her right hand she holds a sword, and in the left hand a laurel branch. On the reverse, across the centre, is inscribed <i>LA GRANDE GUERRE POUR LA CIVILISATION 1914-1918</i> with laurel branches above and below. The rainbow ribbon is adopted as by all the Allies.</p> <p>MÉDAILLE DE LA RECONNAISSANCE FRANÇAISE. One of the most highly prized of the recent Decorations of France was adopted in July, 1917. It is called the <i>Médaille de la Reconnaissance Française</i>. Its purpose was to reward those who had distinguished themselves in acts of devotion to the public interest in the Great War, and for work among the people. At least one year of service is necessary although a few exceptions have been made. It is issued by a decree of the President of the Republic. The medal is of three classes, gold, silver and bronze and is 30 mm. in diameter. On the obverse, an artistic design by Desbois</p>
	NUMISMATIC NOTES



Médaille de Victoire

96	FRENCH ORDERS
	<p>depicts a womanly figure bending over to assist an injured soldier. The reverse is plain, save for a palm branch and the words <i>RECONNAISSANCE FRANÇAISE</i>. The ribbon is 38 mm. wide, of white moiré silk, with blue, white and red stripes each side.</p> <p>This decoration has been conferred on several American and British citizens for their charitable work during the late war, and is considered by some a higher distinction than the <i>Légion d'Honneur</i>.</p> <p>In addition to the foregoing Orders, Decorations and War-medals, there have been many other awards. These have been issued for Education, Life-saving, Service in the Police and Fire Departments, Merchant Marine, and other Government Departments, and conferred chiefly on civilians. They are of gold, silver or bronze, according to the importance of the award. The numismatist, therefore, will have no inconsiderable task in securing specimens of all the French medallic awards.⁷ Most of these are called <i>Médailles d'Honneur</i>. They are as follows:</p>
	NUMISMATIC NOTES



Reconnaissance Française

98	FRENCH ORDERS
	<p> <i>Médaille des Instituteurs</i> 1818 <i>Médaille de la Société de Secours Mutuel</i> 1852 <i>Médaille Coloniale de l'Instruction Primaire</i> 1895 <i>Médaille de l'Instruction Publique en Indo-Chine</i> 1895 </p> <p> Issued by the Ministry of the Interior: <i>Médaille d'Honneur de Sauvetage.</i> For acts of courage and devotion. 1815 <i>Médaille des Épidémies</i> 1885 <i>Médaille de l'Assistance Publique</i> . . . 1886 <i>Médaille des Cantonniers Départementaux et Communaux</i> 1898 <i>Médaille des Sapeurs-Pompiers</i> 1900 <i>Médaille des Halles et Marchés</i> 1900 <i>Médaille de la Police Municipale et Rurale</i> 1903 <i>Médaille des Octrois</i> 1904 <i>Médaille des Contributions Diverses en Algérie</i> 1907 </p> <p> Issued by the Ministry of Foreign Affairs: <i>Médaille de Sauvetage</i> 1881 <i>Médaille pour Services Exceptionnels</i> 1900 </p>
	NUMISMATIC NOTES

AND DECORATIONS	99
<p>Issued by the Ministry of Justice: <i>Médaille d'Honneur Pénitentiaire</i> . . . 1896</p> <p>Issued by the Ministry of Finances: <i>Médaille des Douanes</i> 1894 <i>Médaille des Contributions Indirectes</i> 1897</p> <p>Issued by the Ministry of War: <i>Médaille des Épidémies</i> 1892 <i>Médaille du Travail</i> 1888</p> <p>Issued by the Ministry of Marine: <i>Médaille de Sauvetage</i> 1820 (The ribbon when issued to members of the Naval fleet has an anchor embroidered thereon.) <i>Médaille du Travail</i> (for those not in the Naval service) 1894 <i>Médaille d'Honneur des Marins du Commerce</i> 1901 <i>Médaille des Épidémies</i> 1909</p> <p>Issued by the Ministry of Public Works: <i>Médaille des Cantonniers et Agents Subalternes</i> 1897 <i>Médaille des Postes et Télégraphes</i> . . 1882</p>	
AND MONOGRAPHS	

100	FRENCH ORDERS
	<p><i>Médailles de Sauvetage</i> 1899</p> <p><i>Médaille du Travail</i> 1899</p> <p>Issued by the Ministry of Agriculture:</p> <p><i>Médaille Forestière</i> 1883</p> <p><i>Médaille du Travail</i> 1890</p> <p>Issued by the Ministry of Commerce and Industry:</p> <p><i>Médaille du Travail</i> 1886</p> <p><i>Médaille de l'Exposition Universelle de 1900</i> 1900</p> <p>Issued by the Ministry of the Colonies:</p> <p><i>Médaille Pénitentiaire Coloniale</i> 1898</p> <p><i>Médaille des Douanes et Régies de l'Indo-Chine</i> 1900</p> <p><i>Médaille de Sauvetage</i> 1820</p> <p>In addition to the above, similar medals are issued by the Government for services in Algeria.</p> <p>H. Leduc writes in his book <i>Histoire des Décorations en France</i>, p. 125:</p> <p>“Following the instruction of the Grand Chancellor of the Order of the <i>Légion</i></p>
	NUMISMATIC NOTES

AND DECORATIONS	101
<p><i>d'Honneur</i> for the execution of the ordinance of April 16th, 1824, the only Royal Orders allowed are:</p> <ol style="list-style-type: none"> 1. <i>Saint-Esprit</i> 2. <i>Saint-Michel</i> 3. <i>Saint-Louis</i> 4. <i>Mérite Militaire</i> 5. <i>Légion d'Honneur</i> 6. <i>Saint-Lazare and Notre-Dame-du-Mont-Carmel réunis.</i> <p>“All subjects of the King (Louis XVIII) decorated with one of these Orders must be furnished with <i>brevets</i> or with letters of advice, stating their nomination and signed by the following:</p> <p>For the <i>Saint-Esprit</i>, by the Chancellor of the Order.</p> <p>For the <i>Saint-Michel</i>, by the Ministry of the House of the King.</p> <p>For the <i>Saint-Louis</i> and the <i>Mérite Militaire</i>, by the Ministers of War or Marine.</p> <p>For the <i>Légion d'Honneur</i>, by the Grand Chancellor of the Order.</p>	
AND MONOGRAPHS	

102	FRENCH ORDERS
	<p>For the reunited Orders of <i>Saint-Lazare</i> and <i>Notre-Dame-du-Mont-Carmel</i>, by the Minister of the House of the King.</p> <p>“The last Order has not been conferred since 1788 and is being discontinued.</p> <p>“All others claiming classification among the French Orders, such as those of the <i>Saint-George de Franche-Comté</i>, <i>Saint-Hubert des Ardennes</i>, <i>de Lorraine et du Barrois</i>, <i>du Saint-Sépulcre de Jérusalem</i>, and all others under whatever title or denomination, whether given by Commissions, Chapters, Corporations, Associations, Brotherhoods, Arch-brotherhoods, so-called Grand Masters or their Delegates, Governors of General Administrators, etc., are declared abolished, consequently null, illegal and improper. Those who do not surrender them immediately are subject to penalties under Article 259 of the Penal Code.”</p> <p>Chronological table of other French Orders, which ceased to exist at the time of the Revolution:⁸</p> <p><i>Ordre du Chien et du Coq</i>. Founded by Lisois de Montmorency in 500.</p>
	NUMISMATIC NOTES

AND DECORATIONS

103

Ordre de la Genette. Founded by Charles Martel in 752, after the battle with the Saracens.

Ordre de la Frise ou de la Couronne Royale. Founded by Charlemagne in 802.

Ordre de la Machine dite Harfleur. Founded by William the Conqueror, son of Richard, Duke of Normandy, 997.

Ordre du Lion. Founded by Enguerrand de Coucy in 1080, after having slain a lion.

Ordre du Saint-Esprit de Montpellier. Founded by Count Guy in 1198.

Ordre de la Milice de Jésus-Christ. Founded by St. Dominique in 1210.

Ordre de la Foi de Jésus-Christ. Founded in 1220 to uphold religion.

Ordre de la Paix. Founded by Ameneus, Archbishop of Auch in 1229.

Ordre de la Cosse de Genêt. Founded by St. Louis in honour of his son's marriage with Marguerite in 1234.

Ordre du Croissant. Founded by Charles d'Anjou, brother of St. Louis in 1268 (Lawrence-Archer gives 1448).

Ordre du Navire et de la Coquille de Mer. Founded by St. Louis in 1269.

AND MONOGRAPHS

104	FRENCH ORDERS
	<p><i>Ordre de l'Étoile ou de Notre Dame de la Noble-Maison.</i> Founded by Jean II in 1351.</p> <p><i>Ordre de l'Écu d'Or.</i> Founded by Louis II, Duke of Bourbon in 1369.</p> <p><i>Ordre de Notre-Dame du Chardon ou de Bourbon.</i> Founded by Louis II in 1369.</p> <p><i>Ordre de la Passion de Jésus-Christ.</i> Founded by Charles VI in 1400.</p> <p><i>Ordre des Fous.</i> Founded by Adolphe, Count of Clèves in 1380.</p> <p><i>Ordre de l'Hermine et de l'Épi.</i> Founded by John IV, Duke of Brittany in 1381.</p> <p><i>Ordre de la Couronne.</i> Founded by Enguerand, Comte de Soissons in 1390.</p> <p><i>Ordre de Saint-Georges.</i> Founded by Philibert de Miolans in 1390.</p> <p><i>Ordre du Camail ou du Porc-Épic.</i> Founded by Louis of France, Duke of Orleans, in 1394.</p> <p><i>Ordre de la Colombe ou de la Raison.</i> Founded by Henry III in 1392 or 1399.</p> <p><i>Ordre du Fer d'Or et du Fer d'Argent.</i> Founded in 1414 or 1415 by Jean, Duc de Bourgogne, son of Louis XII.</p>
	NUMISMATIC NOTES

AND DECORATIONS	105
<p><i>Ordre des Dames Chevalières de la Cordelière.</i> Founded in 1498 by Anne of Brittany. (Lawrence Archer gives date as 1798.)</p> <p><i>Ordre de la Chapelle de Notre-Dame.</i> Founded in 1520 by the Burgesses of Valenciennes.</p> <p><i>Ordre de la Croix.</i> Founded by Francis I in 1576.</p> <p><i>Ordre de la Charité Chrétienne.</i> Founded by Henry III in 1589.</p> <p><i>Ordre du Cordon Jaune.</i> Founded by the Duc de Nevers in 1600.</p> <p><i>Ordre de la Madeleine.</i> Projected by Jean Chemel in 1614.</p> <p><i>Ordre de Saint-Jacques de Haut-pas ou de Lucques.</i> Founded in 1672.</p> <p><i>Ordre de l'Étoile de Notre-Dame.</i> Founded by Aniaba, a pretending King of Eiszinie (Africa), in 1701.</p> <p><i>Ordre de la Mouche à Miel.</i> Founded by Louis-Bénédictine de Bourbon in 1703.</p> <p><i>Ordre du Pavillon.</i> Founded by Louis XV in 1717 when eight years of age, for the young men of the Court.</p> <p><i>Ordre de la Constance.</i> Founded by various nobles in 1770.</p>	
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106	FRENCH ORDERS
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NUMISMATIC NOTES AND MONOGRAPHS

No. 12



THE GOLD DOLLARS OF 1858 WITH NOTES OF THE OTHER ISSUES

By HOWLAND WOOD

THE AMERICAN NUMISMATIC SOCIETY
BROADWAY AT 156TH STREET
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NUMISMATIC

NOTES & MONOGRAPHS

EDITOR: SYDNEY P. NOE

NUMISMATIC NOTES AND MONOGRAPHS is devoted to essays and treatises on subjects relating to coins, paper money, medals and decorations, and is uniform with Hispanic Notes and Monographs published by the Hispanic Society of America, and with Indian Notes and Monographs issued by the Museum of the American Indian-*Heye* Foundation.

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THE AMERICAN NUMISMATIC SOCIETY

PRESS OF THE LENT & GRAFF CO., NEW YORK

THE GOLD DOLLARS OF 1858

With Notes of the Other Issues

By Howland Wood

A number of years ago one of our old-time collectors told his son that there was a rare variety of the 1858 gold dollar with the word "*Dollar*" much larger than on the ordinary specimens. While examining some United States proof sets at an auction sale years before, he had noticed this peculiarity, but through inappreciation of its rarity at that time he failed to get it. The son was an enthusiastic collector and though constantly on the watch for this variety was never able to locate a specimen. Other collectors have been on the lookout for this piece, but so far as known they have failed in their quest.

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2	G O L D D O L L A R S
	<p>The piece under consideration was for many years in the possession of Mr. J. C. Randall of Philadelphia. It was probably included in lot 472, a proof set of 1858, sold with some of his other coins by Cogan on March 29th, 1882.</p> <p>Whether the late Ben G. Green saw one of these coins it is impossible to prove, but in his Numismatic Reference and Check Book published in 1902 he lists under the Gold Dollars of 1858 the second one as follows: "large 1 Dollar." This statement of Mr. Green's seems to have remained unnoticed by most collectors.</p> <p>The American Numismatic Society has in its possession one of these gold dollars. Possibly it is the identical Randall specimen. This piece formed part of the collection of United States Gold and Silver Coins presented to the Society in 1908 by the late J. Pierpont Morgan and it was listed as "Rare" in the inventory of the collection. The piece differs in many respects from the regular issues as will be seen from the illustration. The letters of the legend on</p>
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the obverse are larger and the head is set lower in the field. The "1" on the reverse is of different shape and the word "DOLLAR" is in much higher letters. The rims around the edge are a trifle broader. It is a pattern coin in the strict sense of the word. Designed to test out the advisability of making the inscriptions more legible, it failed to do this and consequently was not adopted. One or more of these pieces may have found their way into the proof sets of that year, but none, or apparently extremely few, reached the hands of collectors of pattern coins. This particular variety is only known otherwise by a few examples struck in copper.

The gold dollar came into existence in 1849 by Act of Congress on March 3rd of the same year, together with the twenty dollar gold piece, though the latter was not struck for circulation until the following year. The gold dollar was discontinued in 1889, and the Act to abolish it was passed September 26th, 1890.

It is interesting to note that the first pattern for a gold dollar is dated 1836 when



the Gobrecht silver-dollar patterns were made in anticipation of the resumption of striking silver dollars. This first pattern for a gold piece has a liberty cap in a rayed circle, and the denomination 1 D, in a closed wreath on the reverse side.

An interesting gold pattern, struck in 1849, has a square hole in the centre.

In 1852 the so-called ring dollars were made by way of experiment.



O F 1858	5
<p>William Barker in 1872 made a new design for all denominations of the gold and silver coinage, and specimen pieces were struck in various metals. These designs were not adopted.</p> <p>Of the regular gold dollars there are several minor varieties of the year 1849, differing in the size of the stars, lettering and the wreath. This style with the coronet head continued into 1854 when a new design on a larger flan appeared. This design with a feathered head-dress was struck in 1854 and 1855. In 1856 the head was made slightly larger and the head-dress changed in a few minor details. The design continued unchanged up to the cessation of the gold-dollar coinage.</p> <p>Gold dollars were struck at the Philadelphia Mint from the inception until 1889, and in the branch mints as follows:</p> <p>New Orleans, with mint mark O, from 1849 to 1853 inclusive, and 1855.</p> <p>Dahlonga, Ga., with mint mark D, from 1849 into 1861 (when the mint was closed).</p> <p>Charlotte, N. C., with mint mark C, from 1849 to 1855 inclusive, 1857 and 1859.</p>	
A N D M O N O G R A P H S	

6	G O L D D O L L A R S
	<p>Pieces dated 1854 are unknown to collectors. The records state that only four were struck.</p> <p>San Francisco, with mint mark S, bearing dates 1854, 1856 to 1860 inclusive, and 1870.</p> <p>Besides the regular issues, various commemorative gold dollars have been struck. These were authorized by Congress and have been sold at double and sometimes treble their face value to aid, for the most part, expositions.</p> <p>1903 Louisiana Purchase Exposition with portrait of McKinley.</p> <p>1903 Louisiana Purchase Exposition with portrait of Jefferson.</p> <p>1904 and 1905 Lewis-Clark Exposition with portrait on the obverse of Lewis; and on the other side, of Clark.</p> <p>1915 Panama-Pacific Exposition with head representing Labor, by Charles Keck. Struck at the San Francisco Mint.</p> <p>1916 and 1917 McKinley Birthplace Memorial; Niles, Ohio, with portrait of McKinley on one side and the Memorial building on the other.</p> <p>1922 Grant Memorial Gold Dollar.</p>
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There are a number of gold dollars, made chiefly in California, but as they have no official status they are not included. For the most part they can be easily distinguished from the genuine pieces by their poor workmanship as well as by their inscriptions and designs.



First Type 1849-54



Second Type 1854 and 1855



Third Type 1856-1889



Second Variety of 1858

TYPES OF GOLD DOLLARS
FOR CIRCULATION





Louisiana Purchase Exposition



Lewis-Clark Exposition



Panama-Pacific Exposition



McKinley Birthplace Memorial

COMMEMORATIVE
GOLD DOLLARS

NUMISMATIC NOTES
AND MONOGRAPHS

No. 13



THE PRE-MOHAMMEDAN COINAGE
OF NORTHWESTERN INDIA

By R. B. WHITEHEAD

THE AMERICAN NUMISMATIC SOCIETY
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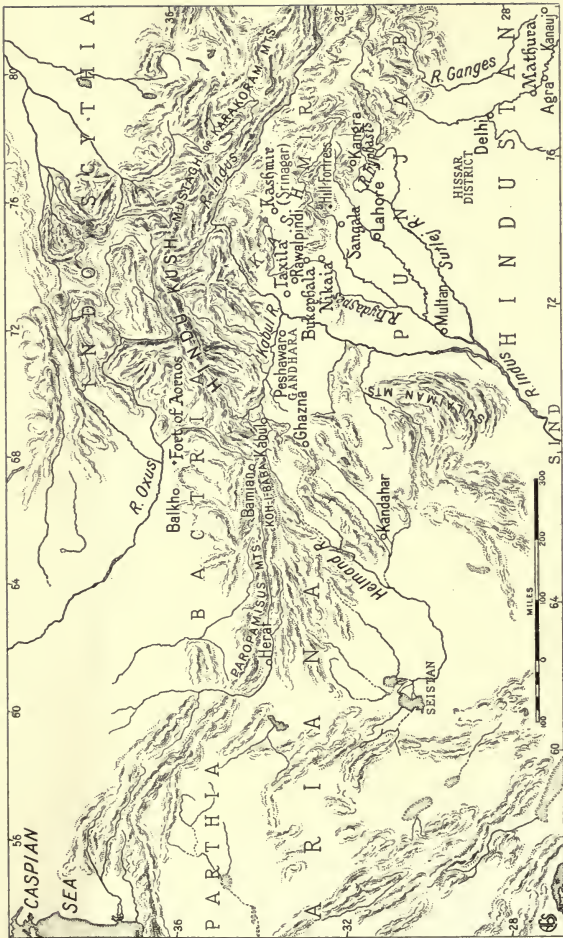
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R. B. WHITEHEAD

Bootle

Cumberland.

XIII

PRE-MOHAMMEDAN COINAGE OF NORTHWESTERN INDIA

BY R. B. WHITEHEAD

It has been laid down as a general rule that coins cannot be considered of primary importance as historical evidence. Their chief uses are to check the statements of contemporary writers and to fill in details; they rarely make history. In the early periods of a nation's history, when evidence from coins is of the greatest value, it is generally meagre. In later periods when inscriptions on coins are fuller and more illuminating, we have a variety of other sources, so that the evidence of coins naturally occupies a subordinate position. On the other hand, we do not hesitate to accept the as-

NUMISMATIC NOTES

sertions of coins, because money always mirrors current events. Even when the reflections are distorted, their very untruthfulness not infrequently affords valuable information.

Apart from actual statements, coins supply historical material in a variety of indirect ways. For instance, since gold coins of the Greeks and Scythians in India are practically unknown, while the gold currency of the Kushans is extensive, we are free to conclude that gold for some reason had become abundant after the downfall of the Greek power

Coins have indirectly proved of the highest value to the archæologist, for the finding of coins along with statues and inscriptions, where the latter are undated, gives a clue to the period at which they were produced. Such finds have shown that Græco-Buddhist statues of the best period of the Gandhara school which is splendidly exemplified in the Punjab Museum, Lahore, were contemporary with the Kushan king, Kanishka. Again, coins present us with a continuous series

of documents illustrating the development of the artistic designs which embellish them, and of the scripts in which the superscriptions are written. For these reasons they are of material interest to the artist and to the epigraphist. In addition to facts, coins are fruitful of surmise. The perils of such surmising are perhaps illustrated in the attempts made to unravel the mutual relationships of the various members of the Indo-Bactrian, Scythian and Parthian dynasties. Still, such deductions, if free from fancy, cannot be far away from the truth and in certain periods of early Indian history we have to be content with conjecture. So much for a general consideration of the Muse of history and her numismatic handmaid.

Now let us turn to Indian history and numismatics. My present paper deals with the monetary issues of the early foreign invaders—Greeks, Scythians, Parthians, Kushans and Ephthalites—and with the indigenous pieces from the earliest times down to the Mohammedan

invasion which are found in Northwest India—especially the Punjab, in which province I have served for seventeen years as a member of the Indian Civil Service. I propose to contribute a second paper which will deal with the coins of the Punjab from the Mohammedan conquest down to the present day.

The term "Indo-Greek" is adopted as a general appellation for the monetary issues of the Greek invaders of India and their immediate successors with whom Greek culture, as revealed by their coins, was still a living force. For convenience I also include the issues of the Bactrian Greeks just prior to the invasion of India. I propose to distinguish the Greek invaders of India by the name "Indo-Bactrian." Then come the issues of what are conventionally termed the Indo-Scythians, Indo-Parthians and Great Kushans down to and including the better executed coins of Vasu Deva. The Bactrians and Indo-Bactrians overlap as some of the Greek kings struck money of both types.

In his preface to the British Museum Catalogue of the Coins of the Greek and Scythic Kings of Bactria and India, Mr. Stuart Poole remarked that few fields of numismatics offer richer material, historical, archaeological and even philological. To a very large extent these contemporary documents in metal are the only testimonies to a period which would otherwise have disappeared from history. There are a few meagre notices by historians of the Bactrian kings Diodotos, Euthydemos, Demetrios and Eukratides. We are also informed that Heliokles was the last king of Bactria. He was overthrown by an irruption of savage tribes from the steppes of Central Asia, and the Greeks who had crossed to the Indian side of the Hindu-Kush were completely cut off from European civilization. The names of Menander and Apollodotos are just mentioned by classical annalists, but those of the numerous other Indo-Bactrian princes are only found on their coins, and till fourteen years ago no other evidence of their existence was known.

But we now have the Brahmi inscription at Besnagar in the Gwalior State, which relates that the pillar on which it is inscribed was erected by Heliodoros, son of Dion, a subject of the great king Antialkidas of Taxila. This is one of the many remarkable discoveries made in recent years by the Archæological Department of India.

The historical importance of the coins now being discussed is not confined to the issues of the Greek princes. Our knowledge of the so-called Indo-Scythians, Indo-Parthians and Great Kushans is almost entirely derived from the study of the coins. The Indo-Parthian pieces give us the name of Gondophares, known to Christian tradition as the Indian ruler under whom the Apostle Saint Thomas suffered martyrdom. One of the Kushan rulers is Kanishka, the famous convener of the fourth great Buddhist Council, the body whose deliberations gave consistency and official sanction to the doctrines of Northern Buddhism. As regards the philological importance of the Indo-

Bactrian coins, it must not be forgotten that they provided the key to the Kharoshthi or Bactrian Pali script. Until their discovery the edicts engraved in this script on the pillars and rocks by the Mauryan king Asoka could not be deciphered because they were written in unknown characters. The Indo-Bactrian pieces are bilingual and were the "Rosetta stone" by means of which the Asoka edicts were unravelled. Many documents written in the Kharoshthi character have been recently discovered by Sir Aurel Stein in Chinese Turkestan. A further interest lies in the shape of these coins, many of them being square or oblong, and in the characteristic designs of gods and animals as conceived by the oriental Greek artist.

A rapid sketch of the numismatic history of the various dynasties is now in order. In the summer of B. C. 334, Alexander the Great crossed the Hellespont at the head of thirty thousand infantry and four thousand five hundred cavalry. He forced the passage of the

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	<p>Persian frontier and afterwards defeated the Persian monarch Darius in two decisive battles at Issus and Arbela. The death of Darius in B. C. 330 was followed by a revolt of the Persian governors of what is now Western Afghanistan, and the rebellion of these eastern satraps showed Alexander that resistance had not died with the decease of the monarch. His first plans were probably confined to the humiliation of Persia, but they seem gradually to have been enlarged with success until they embraced the complete subjugation of the Persian empire and the conquest of India even to the mouth of the Ganges.</p> <p>Alexander's comprehensive mind contemplated much more than a predatory excursion resulting only in plunder. When he determined on the conquest of Bactria and India, he had also formed plans for their permanent occupation and future government. This he purposed to effect by securing the goodwill of his subjects. By the year 328 he had crushed the rebellious Persian satraps and had</p>
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carried his arms over the River Oxus into Bactria. Early in the following spring, Alexander crossed the Indian Caucasus (Hindu Kush). He spent the remainder of the year 327 in the reduction of the various cities and strongholds of the Kabul valley, ending with the capture of the famous rock-fort of Aornos. In the spring of B. C. 326 he crossed the River Indus at Ohind and marched to Taxila (now known as Shahdheri), twenty miles northwest of Rawalpini, where he was hospitably received by the Indian king whose capital it was. From Taxila Alexander advanced to the River Hydaspes (Jhelum) where he was so stoutly opposed by the Indian monarch Porus that he could only pass the river by a stratagem. Then followed a great battle between the Greeks and Indians, the submission of Porus and the foundation of the cities of Nikaia and Bukephala. Next came the capture of the hill-fortress of Sangala and the advance to the River Hyphasis (Beas) beyond which the Greek army, dispirited by

10	P R E - M O H A M M E D A N
	<p>long marches and the warlike character of the people, refused to proceed.</p> <p>There, says Gibbon, on the eastern bank of the Hyphasis, on the verge of the desert, the Macedonian hero halted and wept. He erected twelve huge altars dedicated to the principal deities of Greece and then retraced his steps to the banks of the Hydaspes, where he prepared a fleet to convey his army to the sea. After various adventures he reached the Indian Ocean about the middle of B. C. 325. The Greek fleet coasted round to the Persian Gulf while Alexander himself made a long and harassing march through the desert hinterland of the Arabian Sea to Persepolis and Babylon. He died at Babylon shortly after his arrival in B. C. 323.</p> <p>The chief provinces of Alexander's empire were apportioned to his leading officers. The eastern provinces were Bactriana, Ariana, and India, or the countries watered by the Rivers Oxus, Helmund and Indus, respectively. India comprised the three satrapies of the</p>
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Parapamisadæ (Kabul Valley), the Punjab and Sind. Out of the confusion which followed Alexander's death, Seleukos, satrap of Babylon, emerged as the predominant ruler of Bactriana and Ariana, but was not successful in his expedition against Chandragupta Maurya, king of India, known to the Greeks as Sandrokkottos. By the resulting treaty, about 305 B. C., the Kabul Valley, the Punjab and Sind were added to the dominions of Chandragupta, and Bactriana became the most easterly province of the kingdom of Seleukos. The pact thus made between the Indians and the Greeks was cemented by the residence of Megasthenes, ambassador of Seleukos at the Indian Court. To Megasthenes and his successor the ancient Greeks and Romans were indebted for nearly all their knowledge of the Indian territory.

It is clear, therefore, that Alexander's settlements in India, whatever they may have been, had disappeared within twenty years of his death and we have no reason to believe that his rapid march through

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	<p>the Punjab left anything permanent behind it. No trace of his twelve altars has ever been discovered, which is not surprising considering the great changes which have taken place in the courses of the Punjab rivers during the last two thousand years. It is extremely doubtful that Alexander struck coins in India. However, a second Greek invasion of the Kabul Valley and India was to take place with more durable consequences.</p> <p>Seleukos was assassinated in B. C. 280 and was succeeded by his son Antiochos Soter. Antiochos II, surnamed Theos, followed his father Antiochos Soter in B. C. 261 and commenced hostilities against Egypt. The eastern provinces of the Syrian empire, Bactria and Parthia, seized this opportunity to cast off a yoke which had become little more than nominal. The details of this revolt are obscure, but it resulted in the establishment of a remarkable offshoot of Hellenic colonial enterprise in the heart of Asia. Bactria had greatly increased in strength as the result of fifty years of almost con-</p>
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<p>tinuous peace, and its governor Diodotos assumed independent power. At about the same time a Parthian named Arsakes succeeded in setting up a separate State and launched Parthia on its great career as the rival not only of Bactria and Syria but ultimately of Rome. These important events are assigned to the year 250 B. C. Diodotos struck coins in his own name, with a design of the thundering Zeus, and assumed the title Soter, meaning saviour or protector. This title, if it had any special significance, may have referred to the part played by Bactria in protecting the eastern flank of the Hellenic world from the barbarians of Central Asia. He was probably succeeded by his son of the same name, and this second Diodotos fell a victim to the conspiracy headed by one Euthydemus, who appears to have taken effectual means to prevent any of the rival family from disputing his retention of power. Under Euthydemus, Bactria attained the summit of its prosperity. About 209 B. C. he successfully resisted a</p>	
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	<p>formidable invasion by Bactria's former suzerain, Antiochos III, the king of Syria. Subsequently he carried the Bactrian arms over the Hindu Kush into the Kabul Valley. Doubtless his son Demetrios took a prominent part in these military operations. The demeanor of Demetrios as a youth had won the regard of Antiochos; his exploits as a man pushed the Greek dominion in the East well over the Indian border. The story of Demetrios must have been preserved down to a very late period, as Chaucer refers to the "grete Emetreus, king of Inde," in the Knight's Tale.</p> <p>Euthydemus figures on several fine coins as a man in the prime of life with a stern and heavy face. The seated Herakles is the usual design on the reverse of the gold and silver coins, while a prancing horse figures on the copper pieces—possibly a reference to Balkh, the capital of Bactria, the city of the horse.</p> <p>Demetrios must have acceded to the throne about 190 B. C. There is reason</p>
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<p>to believe that he extended the Greek conquests to the Delta of the Indus, but his coins are seldom if ever found east of the Indus. The best known issue of Demetrios is the series which represents the king wearing an elephant's scalp head-dress; these coins are purely Attic in design and weight. Demetrios, like Euthydemos, seems to have adopted Herakles as his patron deity. Herakles, the Hercules of the Romans, was the most celebrated of the heroes of classical antiquity. He was the apotheosis of rude strength and valor. His weapons were the club and the bow and arrow; his most frequent attributes are the club and lion-skin. He was a great traveller and is said to have reached India, an exploit which is also attributed to Dionysos, the god of vegetation and the giver of wine and alcoholic pleasures. In new lands reached by the Greeks, some local hero or divinity who represented strength of body and mighty deeds would be identified with Herakles, hence his prominence on Indo-Greek coins.</p>	
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	<p>Three obscure princes who were approximately contemporary with, and possibly subordinate to Diodotos and Euthydemos, were Antimachos Theos, Pantaleon and Agathokles. Agathokles struck a very interesting and excessively rare series of silver medallions, which bear his name on the reverse side, but on the obverse give the portraits and names of Alexander, Diodotos, Euthydemos and Antiochos Nikator. It is clear that he is claiming relationship with them or acknowledging their suzerainty, but history affords us not a single hint on which we might base an account of what must have been a chequered career. These coins present three conceptions of Zeus, first, the god enthroned bearing an eagle on his outstretched right hand; then as an avenging deity shielded by the ægis and brandishing a thunderbolt; and thirdly, in an erect position carrying the three-headed Hecate on his right hand.</p> <p>Zeus, the greatest of the Greek deities, the father and king of gods and of men, was primarily the god of the sky and is</p>
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represented in Art as the ideal of ripe manhood, a mature figure with wavy hair and shaggy beard. The attributes of Zeus are the sceptre, eagle, thunderbolt, and sometimes the figure of Nike on his outstretched hand. Kings and queens as depicted on the coins always wear the royal diadem. This was originally the blue and white band tied round the tiara of the Persian monarchs and was the old Asiatic symbol of royalty. It later took the form of a white silk ribbon sometimes embroidered with pearls.

It was probably while Demetrios was fighting on the Indian side of the Hindu Kush that his authority in Bactria was undermined by a rival named Eukratides who appears to have been some connection of the royal house of Seleukos and who eventually was able to usurp the regal authority in Bactria. This happened about the year 175 B. C. In the end Eukratides emerged triumphant from the struggle with Demetrios, who is held to have perished or to have been deposed about 160 B. C.

18	P R E - M O H A M M E D A N
	<p>The extension of the Greek dominion to the south of the Hindu Kush is reflected in the coinage of Demetrios, who is the first of the Bactrian Greeks to strike money on the Indian weight-standard with an inscription in the Indian vernacular (now called Kharoshthi), in addition to the Greek legend; the one legend being a literal translation of the other. There are one or two very scarce bilingual copper coins of Demetrios of the characteristic Indian square shape, and I possess an Indian tetradrachm not yet published.</p> <p>The money of Eukratides has been found abundantly, both the pure Greek kind current in Bactria proper and the Indian bilingual class struck for use on the Indian side of the Hindu Kush. The earliest issues of Eukratides bear the image of Apollo. Apollo was one of the chief divinities of Greece, the god of sunshine and light, lord of oracles and prophecy, of music and poetry, and the ideal of manly youth and beauty. His attributes were the bow and arrow and</p>
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the tripod-lebes, a three-footed stool bearing the lebes or cauldron for burning incense. The most characteristic issues of Eukratides are the splendid tetradrachms with the triumphant design of the mounted Dioskouroi, the great twin brethren, sons of Zeus. Their principal function was that of divine protectors and aiders of mankind, more especially travellers by sea, and their stars appeared above the ship of the voyager as a sure sign of help. They are shown on coins either mounted or on foot, and carry palms of victory and lances. Their distinctive dress was the chlamys and the pilos. The chlamys originated as a rider's cloak worn over armour, a short light mantle clasping at the neck. The pilos was a conical cap of felt or leather worn by artisans and fisher folk. Some seventy years ago a sensation was caused in the numismatic world by the discovery of a gold twenty-stater piece of this type. That magnificent coin was purchased for the French National Collection and may be seen in the Bibliothèque Nationale.

It is the largest surviving gold coin of ancient times, is still unique and is a fitting token of Bactrian wealth and power.

The Roman historian Justin tells us that Eukratides while returning from India was murdered by his own son. The name of the parricide is not recorded. This event is assigned to the year 150 B. C. Some authorities have identified the murderer with Heliokles, some with Apollodotos. Be that as it may, the removal of the strong hand was followed by the rise of a number of princelings probably belonging to the rival houses of Eukratides and Euthydemos, who constantly fought amongst themselves and whose civil wars hastened the dissolution of the Bactrian monarchy. Heliokles and Antialkidas are the last kings to strike money of the Attic standard and design. It is therefore safe to assume that with them passed away the Greek authority over Bactria, and that after their time the Greek power was limited to the Kabul Valley and the Northwest

Punjab. Bactria was overrun by an irruption of nomadic tribes who are known as Saka Scythians, and the Greeks south of the Hindu Kush were completely cut off and are heard of no more. Positively all that history has to tell us of the Indo-Bactrians consists of two casual references to Apollodotos and Menander. I have already stated that the Besnagar pillar inscription, discovered in 1907, is the only known inscription containing a reference to any Bactrian or Indo-Bactrian king. Excavations at Balkh would probably give invaluable results, but at the present time Balkh is inaccessible for the European investigator. We have reason to believe that the Sakas were an involuntary vanguard thrust over the Bactrian frontier by the pressure of other obscure hordes on the Mongolian plains who were destined to overwhelm and replace both Greeks and Sakas in Afghanistan and Northwestern India. I shall briefly allude to these developments after tarrying a few moments with the declining fortunes of the Greeks.

22	P R E - M O H A M M E D A N
	<p>The death of Eukratides was speedily followed by the extinction of the Greek power in Bactria, Heliokles being held to be the last Greek king of Bactria and India. The coins, however, show that a king named Antialkidas, who was probably later than Heliokles, struck money of both Bactrian and Indo-Bactrian types. After the time of Heliokles and Antialkidas, Greek rule was confined to the Indian side of the Hindu Kush, and the Greek dominions appear to have split up into a number of petty states which were generally in a chronic state of war amongst themselves. Sir Alexander Cunningham held that only thirty years elapsed between the death of Heliokles and the end of the Greek rule in India under the last Greek king, Hermaios. Mr. Vincent Smith says one hundred and eighty years. The latest and best informed opinion, that of Professor E. J. Rapson, places the death of Eukratides about 150 B. C. and the downfall of Hermaios about 20 A. D.</p> <p>We have to fit into this period the</p>
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reigns of some twenty-five Greek princes whose names, with the exception of Apollodotos and Menander, are known from their coins only, which, of course, are all of the bilingual Indo-Bactrian types and weights. The slight progressive degradation of design and workmanship combined with the knowledge of the find-spots and such minor details as the comparative abundance or scarcity of the coins of each king, form the sole evidence which the ravages of time have spared to tax the constructive ingenuity of the modern investigator. Menander (apparently the Milinda of the Buddhist records) is the only Bactrian king after Eukratides of whom contemporary records tell us anything. He probably reigned at Sagala, possibly the modern Punjab town of Sialkot, from about 160 to 130 B. C., and seems to have united the entire Greek power in India under himself. He succeeded in the reconquest of the Indian kingdom of Demetrios—the Northwest Punjab, Kabul Valley and Sind—and may have carried the Greek

24	PRE - MOHAMMEDAN
	<p>arms in raiding expeditions down the Ganges valley to Patna. His conversion to Buddhism is a moot question, but there can be no doubt that Buddhism exercised a great power over the early invaders of India, as we shall see in the case of the Kushan emperor, Kanishka. The death of Menander seems to have been followed by a general scramble for power. About the same time the Hindu princes must have driven the Greeks back from Menander's outlying territories in the Punjab plains. A gradual decline ended in the downfall of the last Greek king, Hermaios.</p> <p>The coins of Apollodotos, as we should expect from his name, are largely devoted to the cult of Apollo. But the silver issues usually bear the image of Athene with Ægis and thunderbolt. She was one of the principal Greek deities, personifying to them the guiding influence of life in counsel, industry and strategy of war. Her poetical name was Pallas. As the patron goddess of Athens she was regarded as representing the pre-eminence</p>
	NUMISMATIC NOTES

of the Greek genius in art, literature and science. Her special attribute was the ægis, a goat skin plated with scales in which is set the head of Medusa. The companion or symbol of the goddess was the owl.

Gold coins of the Bactrian Greeks are extremely scarce and of the Indo-Bactrians are absolutely unknown. I have already mentioned the unique twenty-stater piece of Eukratides. The only other gold coin of Eukratides known to me is the stater now in the cabinet of Mr. E. T. Newell, President of the American Numismatic Society. Indo-Bactrian silver coins are found in the tetradrachm and drachm sizes, considerably smaller than the corresponding Bactrian denominations which are on the Attic scale.

As a rule the tetradrachms are extremely rare. For example, when I wrote my Punjab Museum Catalogue (1914) I knew of only one Indian tetradrachm of Heliokles, one of Strato and Agathokleis, three of Archebios, one of Amyntas, four of Antialkidas. They are comparatively

26	PRE - MOHAMMEDAN
	<p>abundant for Menander, Hippostratos and Hermaios. The usual size is the drachm. Polyxenos is known from one silver and one copper coin (both in the Punjab Museum); Telephos from three silver and half a dozen copper coins; Peukolaos from two silver and three or four copper; Theophilos from one silver and half a score copper; Apolophanes from a dozen silver. Several other princes are almost as rare. There is no reason why new names should not be found. One or two drachm issues are square, but the tetradrachms are invariably round. The copper coins are usually square or rectangular. Kingly titles commonly found are <i>Soter</i>, protector; <i>Dikaïos</i>, just; <i>Aniketos</i>, invincible; <i>Nikephoros</i>, victory-bearing. As regards the Kharoshthi language, I may just mention that <i>Basileos</i> translates into <i>Maharajasa</i>, <i>Dikaïou</i> into <i>Dhramikasa</i> and <i>Nikephorou</i> into <i>Jayadharasa</i>; in these three words the familiar <i>Maharaja</i>, <i>Dharma</i> (right) and <i>Jai</i> (victory) are plainly to be seen. The Greek monogram</p>
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may denote the name of the local magistrate under whose authority the coin was struck, or sometimes the mint.

We know that Hermaios was the last of the Indo-Bactrian kings because there is a class of coins which bears two names, that of Hermaios in the Greek legend, and Kujula Kadphises in the Kharoshthi. This inference is definitely proved by the disappearance of the name of Hermaios from the coinage, its place being taken by that of the Kushan conqueror Kujula Kadphises in the Greek legend without alteration in the type, although modern research does not admit that Kujula Kadphises was necessarily the immediate barbarian successor of Hermaios. Thus ended the Greek dominion in Bactria and India after a brilliant career of at least one hundred and fifty years from the establishment of the independent kingdom of Bactria by Diodotos in the year 250 B.C. But though the political power of the Greeks had disappeared, yet Greek culture and civilization survived for another century

28	P R E - M O H A M M E D A N
	<p>or so, as shown by the coins of the Indo-Scythian sovereigns Vonones, Moas and their successors, as well as by the great Kushan conqueror Kujula Kadphises and his dynasty.</p> <p>I should like to interject a few general remarks on these Greek coins. They are beautiful, interesting, rare, and of great value to the historian. They possess all the qualities necessary to attract and stimulate attention. I suppose I should never have become a coin collector but for the fact that in the early part of my service in the Punjab I saw two Indo-Bactrian coins which had been found in my own District. It is possible for a collector fortunately situated, in Peshawar for instance, to acquire a fair number of the commoner kinds of these coins from the bazaars alone. But the modern collector, however well placed, will not make a good collection without recourse to professional agents. He will find that the Bactrian series has been very extensively forged. What a pity it is that the modern collector cannot wander about Kabul</p>
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and the Kabul Valley in the happy way that the American pioneer Masson did ninety years ago! Under present circumstances, Afghanistan is quite inaccessible for the European, and the excavation of Balkh must await more fortunate times. A name well known in connection with Bactrian coins is that of Sir Alexander Cunningham, a former Director-General of Archæology in India. Sir Alexander was one of the first workers in this field and a keen collector for nearly half a century. His unrivalled cabinet is in the British Museum.

I must now ask you to go back with me to the time of the last Bactrian king, Heliokles, and the destruction of the Greek power in Bactria by the Saka Scythian invasion. The term Scythian was applied indiscriminately to the nomadic peoples of Central Asia. It is generally accepted that the hordes which have successively appeared as conquerors, coming from the Asian steppes to the border provinces of Persia and India during the first century B. C. and the five

30	P R E - M O H A M M E D A N
	<p>succeeding centuries, are the following in the order of their arrival—the Sakas, the Kushans or Great Yue-Chi of the Chinese historians, the Lesser Kushans or Little Yue-Chi, and the Ephthalites or White Huns.</p> <p>The ultimate impelling force of these successive waves of invasion from Central Asia seems to have been the deterioration of the grazing grounds. The fall of the Greek princes in India was merely one incident in the history of that well-nigh irresistible migration of entire nations in arms, which, after harassing India, overran almost the whole of Europe, and under the leadership of Attila the Hun all but overthrew European civilization. India was again visited by a similar scourge in the times of Chingiz Khan and of Taimur; and the Mughal invasion of Babur was followed by the establishment of the Mongol or Mughal empire of Hindustan.</p> <p>According to Chinese accounts the Sakas were driven out of the countries north of the Oxus by the Yue-Chi. Re-</p>
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tiring to the south and then to the east, they worked round over a region which roughly corresponds with the present provinces of Siestan, Sind and the Punjab. This, of course, meant the immediate overthrow of the Greeks in Bactria and the eventual destruction of the Greek power in the Punjab, possibly on the death of Menander. However, the Greeks must have continued to hold the Kabul Valley till the time of Hermaios. It is recorded that the Saka tribes who occupied Sakastene or Seistan afterwards separated and formed several distinct states under different rulers. This seems to be borne out by the three distinct dynasties of kings whose names have been preserved on their coins. That proceeding from Vonones and his lieutenants, Spalahores and Spalagadames, held to the west of the Indus; a second dynasty from Maues (or Moas) and the Azes, on both sides of that river; and a third in Sind and the west of Central India. To this last the great satrap Nahapana belonged.

32	P R E - M O H A M M E D A N
	<p>There is no direct historical evidence that the Sakas ever occupied the Punjab, but the three monarchs Moas, Azes and Azilises, whose coins are found abundantly in the Northwest Punjab and Hazara, are accepted as Saka Scythians. They issued an extensive silver and copper bilingual coinage, the Greek legend being quite legible. Like that of the Indo-Bactrian princes, this coinage is without a single specimen in gold, with the possible exception of a tiny gold piece in the Lahore Museum bearing the unique name Athama. In sharp contrast with the Indo-Bactrian coins the pieces of the Indo-Scythians never give us a portrait of the ruler. The coins prove that Azes had an Indian general, Aspa Varma, son of Indra Varma, who also served under the greatest of Azes' successors, Gondophares. Sir Alexander Cunningham makes Gondophares the founder of a separate Saka dynasty in succession to that of Moas, Azes and Azilises, but it is more natural to call this dynasty Indo-Parthian, as the portraits and the names</p>
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of the kings are Parthian. Abdagases was the nephew of Gondophares, and other members of the same line were Orthagnes, Pakores and Sanabares.

The currency of Gondophares is found in great abundance over a wide stretch of country from Peshawar to Delhi. His name is derived from the same origin as that of Gaspard, one of the three Wise Men from the East, and occurs in the Christian tradition concerning the later life of the Apostle Thomas. The apocryphal Acts of Thomas contain certain statements which discoveries, made since the commencement of the nineteenth century, have enabled us to test in the light of actual history. The narrative tells us that Thomas, much against his will and inclination, had to undertake the work of preaching the Gospel to the Indians, and that he was placed in the hands of an envoy of Gondophares, king of the Indians, who had been sent to Syria in search of an architect able to undertake the construction of a palace for his sovereign. Thomas, in company

of this emissary, left by sea for India, which was reached after a rapid passage. Both proceeded to the Court, where Thomas made many converts, including Gondophares himself and his brother Gad, and ultimately died a martyr's death. That after so many centuries the actual existence of this king should have been proved by the discovery of his coins in India is most remarkable. The first specimens were found in Afghanistan by the American explorer Masson about the year 1833.

The name of Gad, Gada, or Guda, the brother of Gondophares, according to Christian tradition, is possibly contained in a hitherto unelucidated Kharoshthi legend on a rare type of coins of Orthagnes. The reign of Gondophares covers the middle of the first century after Christ. About this time were issued the very abundant copper coins of an anonymous king who called himself the King of Kings, the Great Saviour (*Soter Megas*). All bear a three-pronged symbol, the peculiar device of this ruler.

The invasion of the chiefs, conventionally known as Indo-Scythian and Indo-Parthian, preceded that of the Kushan leader, Kujula Kadphises. I have already stated that the first wave of invasion from Central Asia, that of the Saka Scythians, extinguished the Greek power in Bactria, and later on in the Punjab, and left just a remnant of Greek sovereignty in the Kabul Valley. All alike were swept away by the onrush of the Kushans. The work of conquest was continued by the second Kadphises, styled Vima Kadphises on his coins, who overran the whole of the Punjab and Northwestern India. The dominions of Greeks, Indo-Scythians and Indo-Parthians were extinguished, and Northern India came under the Kushan sway.

It is generally held that the successors of Vima Kadphises were Kanishka, Huvishka and Vasu Deva. An inscription recently discovered at Mathura, thirty miles north of Agra, confirms the existence of a king Vasishka between Kanishka and Huvishka, but his coins

have not been found, or possibly, still await identification. Of Kujula Kadphises and Vima Kadphises the only remains are their coins and the brief notices of the Chinese annalists; but of their successors, Kanishka, Huvishka and Vasu Deva, we possess many inscriptions, several of which are dated in an era which has been called the Vikrama Era. It may be remarked that there are a dozen different views regarding the date of Kanishka and the origin of the era. Some writers hold that Kanishka began to reign in A. D. 78. One authority places his initial date about A. D. 123, another as late as A. D. 278. On the other hand, Dr. Fleet held that the Kanishka group preceded that of Kadphises. The period covered by the reigns of the three monarchs, Kanishka, Huvishka and Vasu Deva probably exceeded a century and a half, and the Kushan sway at its zenith must have extended from Kabul to Bengal. The Kushan type of coin was perpetuated in Kashmir down to the sixteenth century of our era, a duration which I think

easily surpasses all records outside China; and Kushan copper coins and the derived types must have remained in common circulation for many centuries after the death of Vasu Deva.

It was in connection with the Buddhist faith that the memory of Kanishka was preserved by tradition, and the figure of Buddha appears on one gold and on a few copper coins. The wonderful relic casket unearthed near Peshawar bears an effigy of the great king Kanishka, and the Punjab Historical Society has published a photographic reproduction of the statue of Kanishka discovered a few years ago near Mathura. The coinage of the Kushans is very extensive in gold and copper, but only a single genuine silver coin is known and that was from a copper coin's die. It thus provides a striking contrast with the currency of the Indo-Bactrians, which is entirely lacking in gold. The coins of Vima Kadphises are bilingual, the Greek legend being quite legible and of some length. After his time the Kharoshthi language disappears

once and for all from the coinage, the only possible exception to this statement being a coin sketched in 1842 and subsequently lost. It was published by Cunningham in his work on the coins of the Great Kushans.

The money of the Kanishka group bears legends on both sides in legible Greek characters, but the kingly titles are usually Iranian. The Kushan gold coin is based on the Roman *aureus*. The entire coinage of Vima Kadphises is dedicated to Shiv, the third person of the Hindu Trinity, but the currency of Kanishka and Huvishka is adorned with the images and names of an extraordinary and extensive gallery of gods, goddesses and heroes with Greek, Indian and Iranian names. The full pantheon of some thirty deities is found on the gold issues of Kanishka and Huvishka. Like the Athenians of old, these Kushans were anxious to offer their devotion to all possible deities though they did not go so far as to dedicate a coin to the Unknown God. The gold coins of Vasu Deva gen-

erally give us a representation of Shiv; the copper issues have the standing king on one side, while on the other there is either Shiv and his bull, Nandi, or a seated goddess called Ardoksho. Vasu Deva was succeeded by obscure princes known as the Lesser Kushans, but after his time the design of the monetary issues becomes sadly debased and the inscriptions difficult to read.

At this point it is appropriate to give a short account of the earliest indigenous coins and then briefly to describe the various native issues down to the Mohammedan invasion. Reference will be restricted to the coins found in the Punjab and its vicinity, but will include some allusion to the Sassanian, Indo-Sassanian and White Hun pieces which are often found towards the North West frontier and in Kashmir.

The earliest coinages of the ancient world appear to have been mostly of silver and electrum (a mixture of gold and silver). The earliest coins of Lydia were made about 700 B.C. by impress-

ing small punches or stamps on thick globules or buttons of electrum. Indian silver coins, which are certainly as old as the most ancient silver Greek issues, are the punch-marked flat pieces of indeterminate shape, but generally approximating to rectangular, adjusted to a fixed weight standard of about 56 grains. They are common all over India.

The mode of fabrication is evident at once from an inspection of the coins. Silver was first beaten out into a sheet somewhat thinner than a quarter-dollar. Strips about half an inch in width were then cut off and each strip was divided into pieces of the same weight, approximately 56 grains, and a final adjustment of the weight was made by cutting small bits off one or more corners of the heavier blanks. The marks of the chisel still remain on the edges of the thicker pieces, which were broken off when the cut did not go clean through the strip of metal. It has been remarked that though the coins known as "punch-marked" are rude, ugly and without legends, and as a

rule not assignable to any particular kingdom or locality, they possess very special claims on the interest of the scientific numismatist as documents in the early history of coinage. They also appeal to the anthropologist as authoritative records of the religious, mythological and astronomical symbolism current throughout India for many centuries.

The term "punch-marked" adopted by general consent means that the devices on the coins are impressed, not by means of a die covering the entire *flan* but by separate punches applied irregularly on the surface. They often interfere with one another and in some cases are so numerous as to result in a confused jumble. Each of these marks may have been the special sign of some money-changer or tester, or of some locality. But this conventional explanation is not sufficient, because we ought to find more punch-marked coins in the earlier stages of their manufacture—that is to say, exhibiting not more than one, two or three marks. I have scarcely ever seen a coin

42	P R E - M O H A M M E D A N
	<p>which was not approximately covered with marks. It seems clear, therefore, that the surface must have been fairly well covered before a piece was released for circulation, and as a rule the marks are all different. Little difficulty is experienced in distinguishing the obverse from the reverse because the former contains several marks, while the latter is sometimes blank and is rarely distinguished by more than one device. More than three hundred different marks have been distinguished.</p> <p>It is difficult to say how old these punch-marked coins may be. They are alluded to in the Laws of Manu and even then they are called old. The Jataka stories speak of these coins as being current in the time of Buddha, that is, the sixth century B.C. In the early Greek money we have the youth of coinage, but in the punch-marked pieces of India we see money in the very infancy of the numismatic art. There is an allusion to Indian money in the record of Alexander's invasion of the Punjab.</p>
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Quintus Curtius, describing the reception of Alexander by Omphis, king of Taxila, says that the Indian ruler presented golden crowns to Alexander and his friends in addition to eight talents of coined silver. As gold was available, it is curious that the punch-marked coinage should consist only of silver and of copper. I think that the punch-marked series of the size and weight just described was intended to be an all silver currency. The true copper punch-marked coins are thick, massive pieces, which are very much rarer than the silver coins.

The Indian monetary system was essentially original. It differed from the Greek and from all other systems in its unit of weight as well as in its scheme of values. The unit of weight is the *rati*, the scarlet and black seed of the *Abrus precatorius*, the Indian liquorice, sometimes called the red-bead vine; and these seeds can be seen in use at the present day in any Indian goldsmith's shop. A single seed weighs something over $1\frac{3}{4}$ grains and the whole of the Indian money pro-

ceeds by multiples of this well-known unit. There can be no doubt that the Indian monetary system is the invention of the Hindu mind.

In addition to the punch-marked coins there are the thick copper coins of Taxila with an elephant on one side and a lion on the other, which were the prototype of the square Indo-Bactrian issues. These are true coins with an impression on each side. We also have massive rectangular pieces with blank reverses which are held to be more ancient than the foregoing, and go back to at least 350 B. C. They differ from the Greek money in every single point, being square in form, different in standard and Indian in type. They are utterly without inscriptions and must be regarded as a purely indigenous currency. It is a pity that we cannot point to definite coins as being issues of the famous Mauryan king Asoka, but the absence of legends makes the attribution impossible. The earliest gold coins of Northern India are one or two small pieces which were probably struck at

Taxila and bear the peculiar symbol which Sir Alexander Cunningham called the Taxila mark. The site of Taxila is twenty miles northwest of Rawalpindi in the Northwest Punjab and is being excavated with most valuable results by Sir John Marshall, Director-General of Archæology in India.

The holy city of Mathura (Muttra) is between Delhi and Agra, thirty miles north of the latter city, and ancient coins are found in considerable numbers beginning with the drachms of Menander and Apollodotos. The copper coins of the Kushans are abundant and there can be no doubt that Mathura belonged to their dominions; Ptolemy includes Mathura in the lower Punjab. The monetary issues of Mathura include coins of Indian rajahs of an indigenous type which are probably earlier than the coins of the Mathura satraps with Persian names. The most ancient of these foreign satraps seem to be the brothers Hagāna and Hagamāsha. Hagamāsha was probably followed by Rajuvula, whose son was

46	P R E - M O H A M M E D A N
	<p>Saudāsa. Rajuvula struck drachms in base silver resembling and associated with the coins of the Indo-Bactrian prince Strato II, as well as bronze coins after the manner of the rajahs. Mr. Vincent Smith places Rajuvula and Saudāsa somewhere about 125-100 B. C.</p> <p>The Taxila and Mathura coins are local issues. Though none of them bears the name of Taxila or of Mathura there can be no hesitation in assigning them to those places because they are not found elsewhere. Other ancient Indian coins are distinguished by the names of the tribes which struck them and so may be called tribal issues. Well-known tribal coins of the Punjab are those of the Odumbaras, Kunindas and Yaudheyas, who struck money in silver and copper, the silver coins being derived from the Indo-Bactrian drachms. The Yaudheyas were one of the most famous tribes of ancient India and were specially noted as warriors, their name being derived from the Sanskrit <i>yudha</i>, battle. They are mentioned by the grammarian Pāṇini,</p>
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who lived before the time of Alexander, as one of the warlike peoples of the Punjab, and they occupied the country on both banks of the River Sutlej.

To sum up, die-struck coins essentially original in form, design and size, existed in India before the invasion of Alexander the Great in 326 B. C. The Greek and Indian types of money mutually influenced one another as shown in the adoption by the Greeks of the Indian square shape and weight standard, and by the Indians of the drachm form and Greek artistic designs.

There can be little doubt that the Kushan empire endured till the third century after Christ, but the history of that century is wrapped in obscurity. We know, however, that in its latter part a chieftain named Gupta ruled in Bihar, his capital being in the vicinity of Patna. In the year 320 the throne was occupied by his grandson, Chandragupta I, who must be regarded as the real founder of the fortunes of his house. This chief established a special era, known in after-

times as the Gupta Era ; and many of the inscriptions and coins of his successors are dated in this era. It continued in use in parts of northern and western India as late as the thirteenth century

After a brief reign Chandragupta transmitted the crown to his son, Samudragupta, who at once entered on a career of aggressive conquest. After reducing the princes of Upper India, he turned his victorious arms against his southern neighbours, and celebrated the attainment of paramount power by the performance of the *asvamedha*, or horse sacrifice. After a long and prosperous reign, during which the River Narbada became the southern frontier of the Gupta empire, Samudragupta passed away and was succeeded by Chandragupta II about the year 375. Under this rule the Gupta empire reached the zenith of its power. He attacked, defeated and slew the satrap Rudrasimha, ruler of Kathiawar, and so extinguished the foreign Saka Scythian dynasty of the Western Satraps, which had lasted for four centuries. The Punjab

did not form an integral part of the Gupta empire, but there can be no doubt Gupta power and influence extended as far as Lahore. Six years ago a find of Gupta gold coins was made in the Hissar district of the Punjab province.

The Gupta currency is essentially a gold issue derived through the gold coinage of the Kushans from the Roman *aureus*. Silver and copper money of the Guptas is scarce and unknown before Chandragupta II. On the annexation of Gujarat and Kathiawar he recognized the convenience of the small silver currency of the Western Satraps, based on the Indo-Bactrian drachmas, and imitated it closely.

About 413 A. D. the empire passed into the hands of Kumaragupta I, son of Chandragupta II. This monarch during most of his long reign enjoyed undiminished power, but towards its close he was troubled by an invasion of the White Huns, which was repelled by his son Skandagupta. The latter, who acceded in 455, reigned till about 480. The in-

cursions of nomad tribes from beyond the northwest frontier gradually shattered his power, and on his death the empire perished. Remnants of the dynasty survived in the eastern provinces for several generations.

I have already shown that the Greek power in India was shattered by the invasions of Asiatic hordes—Scythians, Parthians and Kushans. The Huns appear on the scene in the fifth century after Christ. These barbaric Huns in their migration westwards divided into two main streams, one directed towards the valley of the Oxus and the other to that of the Volga; the former were known as Ephthalites, also by the name of White Huns.

The tribe of Ephthalites was of considerable importance in the history of India and Persia in the fifth and sixth centuries of our era. The name Ephthalite is an attempt to reproduce the original name of the race, which was also called White Hun, because its members were of a comparatively fair appearance. In India they

were called Hūnas. Our earliest information about the Ephthalites comes from the Chinese chronicles, which state that they were originally a tribe of the Great Yue-chi, that is to say, they belonged to the same stock as the Kushans and lived to the north of the Great Wall. About the commencement of the fifth century after Christ they began to move westwards and for the next century and a half they were a menace to Persia, which they continually and successfully invaded though they never held it as a conquest. The Ephthalites defeated and killed the Sassanian king Firoz in A. D. 484, and the Persians were not quit of the White Huns until 557, when Anurshirwan (Khusru II) destroyed their power with the help of the Turks, who now make their first appearance in western Asia.

The Huns who invaded India appear to have belonged to the same race as those who molested Persia. The headquarters of the horde were at Bamian and at Balkh, the ancient capital of Bactria, and from these points they raided towards the

south. As already related, Skandagupta repelled an invasion, but the defeat of the Persians in 484 stimulated the Huns, and at the end of the fifth century their chief, Toramana, penetrated as far as Malwa in Central India and held it for some time. His son Mihirgul, or Mihirakula (c. 510-540), made Sakala (Sialkot) in the Punjab his Indian capital, but the cruelty of his rule provoked the Indian princes to combine and attack him about the year 528. He took refuge in Kashmir, where after a few years he seized supreme power and attacked the neighbouring kingdom of Gandhāra, perpetrating terrible massacres. He died about 540 and shortly afterwards the Ephthalites collapsed under the attacks of the Turks.

Our knowledge of the Indian Hūnas is chiefly derived from coins, from a few inscriptions, and from the accounts of the Chinese pilgrim, Hwen Tsang, who visited India just a century after the death of Mihirakula. The accounts of the Ephthalites dwell on their ferocity and

cruelty; they are represented as delighting in massacres and torture. The patron deity of Mihirakula, as clearly shown on his coins, was Shiv the Destroyer, and he acquired the reputation of a ferocious persecutor of Buddhism. Greek writers give a more flattering account of the Ephthalites, and these opinions were probably the basis of Gibbon's verdict when he described the White Hun as "a polite and warlike people who had vanquished the Persian monarch and carried their victorious arms along the banks, and perhaps to the mouth of the Indus." Nothing whatever is known of their language, but it is held to have been allied to Turkish. The White Huns were more barbarous than the Kushans and do not seem to have acted as other than a destructive force.

The Ephthalites were content to re-strike or imitate the coins of the countries which they overran. The silver coins, which are very much scarcer than the copper, are large thin pieces of the Sassanian model and as far as portraiture

is concerned are little more than examples of calculated frightfulness. Many of the White Hun pieces are anonymous, but are usually distinguished by a peculiar mark which Cunningham called the Ephthalite symbol.

After the extinction of the White Hun power in the middle of the sixth century, it seems likely that the Lesser Kushans again possessed the Punjab for about three hundred years, as we find more and more debased types of coinage which are quite illegible but are still to be recognised as descended from those of the Great Kushans and of the Sassanians. I may instance the ubiquitous *gadhiya paisa*, or ass money.

In the ninth century we again get coins bearing distinct names, the well-known "bull and horseman" silver currency of the dynasty commonly called the Hindu kings of Kabul. The coins show a *couchant* bull on one side, and on the other a fully caparisoned warrior mounted on his charger. The name of the king is in Nagari characters over the bull. Copper

pieces are of the "elephant and lion" type, both animals being heraldic in design. The coinage of Samanta Deva is extremely common in the Punjab. These types continued till the conquest by the Ghaznivis early in the eleventh century and the "bull and horseman" type was perpetuated by these Mohammedan conquerors.

The Maharajahs of Kashmir issued very degraded copies in copper of the Kushan money, which occupy the period from the sixth to the sixteenth century—a wonderful instance of persistence of type.

In the United Provinces and Central India we have debased imitations of Sassanian coins without legends in silver and copper. There is one common issue with a representation of the boar incarnation of Vishnu and the title *Srimad Adi Varaha*, which we know was borne by Bhoja Deva, king of Kanauj, in 850-900 A. D. From the tenth century there are the abundant mixed metal and copper coins of the "bull and horseman" type in-

56	COINAGE OF INDIA
	<p data-bbox="272 227 911 470">vented by the Hindu kings of Kabul which were struck by the Rajputs of Delhi, Ajmer and Kanauj. In Western and Southern India are the mediæval coins of the kingdoms of Vijayanagar and Mysore.</p> <p data-bbox="272 475 911 677">We have now reached the commencement of Mohammedan rule in India and with it the end of that obscure period in which coins have actually created so much history.</p>
	NUMISMATIC NOTES

AV



Diodotos

AR



Diodotos

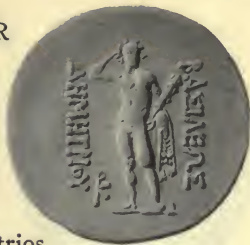
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Euthydemus



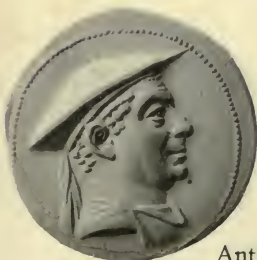
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Demetrios



Euthydemos II



Antimachos





AR



AR



AR



Agathokles



22



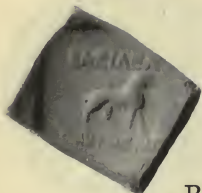
23



24



with family



AE



Pantaleon



AV



Eukratides



AR



Eukratides





AR



AR



AE



Eukratides





AR



Heliokles



AR



Heliokles



AR



Archebios





AR



Menander



AR



Menander



AR



Apollodotos



AE



Apollodotos





AR



Azes



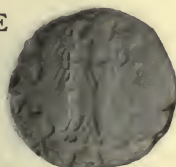
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Spalahores & Spalagadames



AE



Gondophares



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Soter Megas



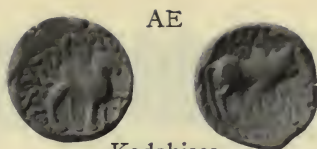
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Kadphises



Kanishka



Huvishka



Vasu Deva



Fig. 1



Fig. 2



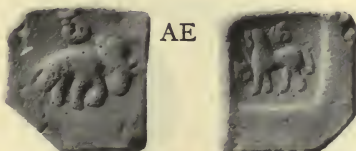
Fig. 3



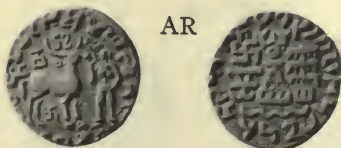
Fig. 4



Punched Marked Coins



Taxila



Amoghabuti of Kuninda



Yaudheyas



Three small, dark, rectangular objects, possibly seeds or small stones, arranged horizontally.



Two small, dark, rectangular objects, possibly seeds or small stones, arranged horizontally.



Two small, dark, circular objects, possibly seeds or small stones, arranged horizontally.



Two small, dark, circular objects, possibly seeds or small stones, arranged horizontally.



AV



Chandragupta II



AV



Chandragupta II



AV



Skandagupta



AR



Siladitya



Fig. 1. 186



Fig. 2. 186



Fig. 3. 186

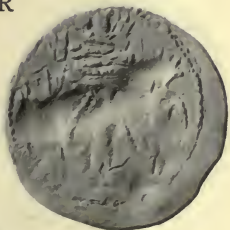


Fig. 4. 186

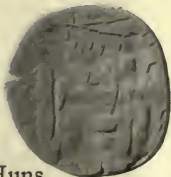
AR



AR



AR



White Huns



AE



White Huns

Billon



White Huns

Billon



Gadhiya Paisa

1875





AR



Samanta Deva (Kabul)



AE



Samanta Deva (Kabul)



AE



Tetomana (Kashmir)



Billon



Srimad Adi Varaha



188



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188

NUMISMATIC NOTES AND MONOGRAPHS

No. 14



ATTAMBELOS I OF CHARACENE

By GEORGE F. HILL, M.A.

THE AMERICAN NUMISMATIC SOCIETY
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The American Numismatic Society. Catalogue of the International Exhibition of Contemporary Medals. March, 1910. New and revised edition. New York. 1911. xxxvi, 412 pages, 512 illustrations. \$10.00.

The American Numismatic Society. Exhibition of United States and Colonial Coins. 1914. vii, 134 pages, 40 plates. \$1.00.

7

NUMISMATIC NOTES AND MONOGRAPHS

EDITOR: SYDNEY P. NOE

NUMISMATIC NOTES AND MONOGRAPHS
is devoted to essays and treatises on subjects relating to coins, paper money, medals and decorations, and is uniform with Hispanic Notes and Monographs published by the Hispanic Society of America, and with Indian Notes and Monographs issued by the Museum of the American Indian—Heye Foundation.

ATTAMBELOS I OF CHARACENE

BY
GEORGE F. HILL, M.A.



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1922

14
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ATTAMBELOS I OF CHARACENE

BY G. F. HILL.

The five tetradrachms of this king, which were published in the recently issued volume of the British Museum Catalogue,¹ formed part of a hoard. Of this hoard 50 pieces in all were secured by Col. H. B. McCormick, D.S.O. Whether the hoard ever contained any more than these I am unable to state. It was reported to have been fetched across the border from Susa to Amara, where it was bought; but there may be no more truth in that statement than in another, to wit: that the coins had been buried in a bronze pot which, when examined by experts, proved to be of Arab workmanship and perhaps a thousand years later than the coins. That the coins had been in contact with copper is, however, undoubtedly true, for the forty-five coins which were brought to me by Col.

McCormick were so thickly coated with a copper deposit that their real composition—a not very pure silver²—could hardly be surmised. They have all since been cleaned—nearly all with complete success; two, however, had considerable patches of deep-seated decay, which in the cleaning disappeared altogether, leaving large cavities on the obverses.

Of the 45 new coins shown by Colonel McCormick, one has been kept by himself, and 22 by the British Museum. In the following list, an asterisk is placed against the weight of the specimens retained by the Museum. I proceed to give a complete list of all the coins known to me of this king—51 in all, including the Berlin specimen, or 52, if, as seems probable, the bronze coin at Paris is of him and not of the second Attambelos.

All the coins are of the general description already given in the Museum Catalogue, as follows:

Obv. Head of King r., diademed, bearded, hair in curls; border of dots.

Rev. Herakles seated l., with club which rests on his r. knee. On r. downwards and on l. downwards, inscription (rarely preserved in full) ΒΑΣΙΛΕΩΣ ΑΤΤΑΜΒΗΛΟΥ on r., ΣΩΤΗΡΟΣ ΚΑΙ ΕΥΕΡΓΕΤΟΥ on l. Above r. arm, monogram; in exergue, date (too often mutilated).

They fall into three groups, according as they have


(A) a monogram on obverse in front of the head, and on the reverse a monogram or letter under the arm, as well as the monogram above it.



(B) no monogram on obverse, but a letter under the arm as well as the monogram above it.


(C) no monogram on obverse, and on the reverse no letter under the arm, but only the monogram above it.

Contrary to the usual rule in the development of coins, the equipment of monograms and letters becomes less complicated as time goes on; the chronological order of the groups is the same as that given above.



SERIES A.

On the obverse, monogram  in front of head.

1-5. On the reverse,  above arm,  below; date, when legible $Z \Xi \Sigma$ (267). Weights, 15.09 grammes, 14.78 gr.*, 13.41 gr., 12.97 gr.* (*Pl. I*), 12.82 gr.

6. On the reverse, obscure monogram³ above arm,  below date $H \Xi \Sigma$ (268). Wt. 11.24 gr.* (*Pl. I*).

SERIES B.

No monogram on obverse; on reverse, above arm  (No. 7) or  (Nos. 8-13); below, a letter.

7. Letter under arm obliterated. Date, $\Theta \Xi \Sigma$ (269). Wt. 10.50 gr.* (B.M.C. p. 291, No. 1).

8. Letter under arm, Z . Date, $\Xi \Xi \Sigma$. Wt. 14.47 gr.

9. Letter under arm, Z . Date illegible. Wt. 13.37 gr.*

10. Letter under arm, P . Date illegible. *Same obv. die as No. 9.* Wt. 14.02 gr.* (*Pl. I*).

11. Similar to No. 10, but from differ-

NUMISMATIC NOTES

ent dies. Date, $\square(?)\Sigma$ (270). Double-struck on rev. Wt. 11.88 gr.

12. Letter \times (?) under arm. Date, $\square\Sigma$ (270). Wt. 13.15 gr*.

13. Letter \times under arm. Date off the flan. Wt. 10.74 gr.* (B.M.C. p. 292, No. 5).

SERIES C.

No monogram on obverse; on reverse, monogram H above arm.

14, 15. Date, $\text{B}\square\Sigma$ (272). Wts. 13.68 gr.* (B.M.C. p. 291, No. 3) and 13.72 gr.*

16, 17. Date, $\Gamma\square\Sigma$ (273). *Both from same obv. die as No. 15.* Wts. 10.69 gr.* and (?) (the latter retained by Col. McCormick).

18, 19. Date, $\Gamma\square\Sigma$. *Both from same obv. die.* Wts. 13.46 gr.* (Pl. II) and 10.37 gr.

20. Date, $\Gamma\square\Sigma$ or $\Gamma\Pi\Sigma$ (283). Wt. ? (Berlin; Waddington, *Mélanges* Pl. VI. 7, where the date is taken to be $\Gamma\Pi\Sigma$). The bottoms of the letters of the date are off the flan or not struck up, judging from a cast which I owe to Dr. Regling.

6	ATTAMBELOS I
	<p>21. Date, ΕΞ (275). Wt. 12.53 gr.*</p> <p>22. Date, Ε(?)Ξ. Wt. 9.95 gr.*</p> <p>23. Date, ΞΞ (276). <i>Same obv. die as No. 22.</i> Wt. 12.43 gr.*</p> <p>24. Date, Ξ[Ξ]. Different dies. Wt. 11.22 gr.</p> <p>25, 26. Date, ΖΞ (277). <i>Both from same obv. die.</i> Wts. 15.07 gr.* (Pl. II), 12.09 gr.*</p> <p>27, 28. Date, ΗΞ (278). <i>From the same pair of dies.</i> Wts. 14.13 gr.* (Pl. II), 11.54 gr.</p> <p>29. Date, ΗΞ. <i>Different dies.</i> Wt. 13.98 gr.</p> <p>30. Date, ΘΞ (279). Wt. 13.54 gr.* (B.M.C. p. 291, No. 2).</p> <p>31. Date, ΘΞ. Wt. 12.13 gr.*</p> <p>32. Date, ΙΞ. Wt. 12.15 gr.* (B.M.C. p. 292, No. 4). I cannot explain the very puzzling digit sign. In some lights there seems to be a middle horizontal. If the right vertical were continued downwards and a bottom horizontal supplied, we should have a square theta, such as is used in the name of the next king, Thionesios. The loss of the</p>
	NUMISMATIC NOTES

missing parts would be accounted for by a slight depression in the surface which occupies their place. Judging by the style of the obverse, the coin belongs to about this period of the reign. The weak point of this explanation is that a round theta seems to be used on Nos. 30 and 31.

33. Date, $\Sigma\Box\Sigma$. Wt. 11.20 gr.*

34. Date quite illegible. *Same obv. die as No. 33.* Wt. 11.50 gr.

35, 36. Date, $\Sigma\Box\Sigma$ or $\Sigma\Pi\Sigma$. *From same obv. die.* Wts. 12.97 gr.*, 12.18 gr. (a large cavity on obverse of the latter).

37-40. Date, $\Sigma\Box\Sigma$ or $\Sigma\Pi\Sigma$. Wts. 12.14 gr., 11.96 gr., 11.94 gr., 10.04 gr.

41. Date, $\Gamma\Pi\Sigma$ (283). Wt. 12.42 gr.* (large cavity on obverse).

42. Date, $\Delta\Pi\Sigma$ (284). Wt. 12.30 gr.* (*Pl. III*).

43. Date, $\Sigma\Pi\Sigma$. *Same obv. die as No. 42;* therefore the first letter of the date is probably Γ , Δ or Ξ .

44, 45. Date illegible. *Both from same obv. die.* Wts. 13.20 gr.*, 12.72 gr.

46, 47. Date illegible. *Both from*

8	ATTAMBELOS I
	<p>same pair of dies. Weights 11.66 grammes, 10.11 grammes.*</p> <p>48-51. Date illegible. Wts. 14.05 gr., 11.63 gr., 11.31 gr., 9.93 gr.</p> <p>52. The bronze coin with Nike as reverse type (Waddington, <i>Mélanges</i>, p: 89, No. 6, here <i>Pl. III</i>) seems to me, judging from a cast, to be of this Attambelos rather than of the second.</p> <p>The first point to be noted is that if the date on the coins of Thionesios I were really ΓΟΣ, as it has always been read, he would be an intruder in the middle of the reign of Attambelos I. But, as Mr. Robinson has observed to me, the omicron on these coins is always square, and the middle sign is therefore presumably a koppa. His suggestion is completely confirmed by M. Babelon who, having re-examined the coins, kindly informs me that the beginning of the tail of the koppa is discernible on the two out of the three specimens on which the date is legible at all. (See <i>Pl. III, A</i>.) We thus have the dates 267 to 284 (46/5-29/8 B.C.) fixed in the chronology</p>
	NUMISMATIC NOTES

of Attambelos I and 293 (20/19 B.C.) in that of Thionesios I.⁴ There thus still remains a gap of nine years to be supplied between the dates established for the two kings; and, further, since it is uncertain whether the latest date of Tiraïos II is 261 or 264, there may be a year or two to add on at the beginning of the reign of Attambelos.

The next king known in succession to Thionesios I is Attambelos II. His portrait is easily distinguishable from that of Attambelos I by the treatment of the hair; both are in long locks, but those of the first king are frizzed, whereas on the head of the second they hang more or less lankly. A good specimen is figured in *Pl. III, B*. This is the piece the date on which M. Babelon⁵ has read ΕΠΣ. Since this would make Thionesios I an intruder in his reign, the reading would seem to require revision. The coin is slightly double struck, and on the cast I seem to see that the hundreds figure may have been a Τ of which only the right-hand portion of the horizontal

10	ATTAMBELOS I
	<p>and the upper portion of the vertical remain legible. It bears the same monogram as coins dated $\Gamma IT(?)$, ζIT and \mathbf{IIT} ⁶ and resembles them also in the style of its lettering. The earliest date otherwise read on coins of this king is $\mathbf{EQ\Sigma}$ (Berlin).⁷ Taking this, then, as the first fixed point in his reign, we have a gap of 12 years between him and Thionesios I.</p> <p>It is unlikely that these gaps will be filled by the discovery of other kings, because, as I have remarked elsewhere, the series we now know squares with the numbers given by a passage of Pseudo-Lucian which caused some difficulty before the discovery of Attambelos I.</p> <p>I am unable to offer any certain explanation of the monograms and letters which distinguish these coins. But it seems probable that those on the reverses represent officials in charge of the mint, for they are used continuously for a shorter or longer period of years, and do not recur after an interval, as they might if they represented place names. The</p>
	NUMISMATIC NOTES

monogram on the obverse of Series A is possibly meant for the king's own name, like the somewhat similar counter-mark, which is found on coins of Attambelos III and Thionesios III.⁸ The letters under the arm cannot represent months, since they run to X.

The weights, it will be observed, are excessively irregular. This may partly be due to the cleaning of the coins; although nothing has been deliberately removed, chemical changes in alloy may have affected the weights of some of the pieces.

NOTES

¹ *Arabia* &c., pp. 291-2. In the course of these notes I have made a few tacit corrections in my previous descriptions of these coins.

² But easily distinguishable from the metal of the succeeding kings, which is very base.

³ All that is clear is a loop resembling the lower part of a B.

⁴ Assuming the use of the Seleucid era, and not that of Alexander; a point on which Col. Allotte de la Fuÿe will have something to say.

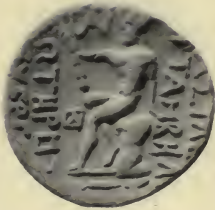
⁵ *Mélanges numismatiques* iii (1900) p. 230.

⁶ B.M.C. p. 293. Nos. 1-3. I note here that No. 5 of this king has the same monogram as his earlier coins of $\text{Ξ} \varphi \Sigma$, $\text{EQ} \Sigma$ and T , and should therefore have been placed before No. 1, although its date is illegible.

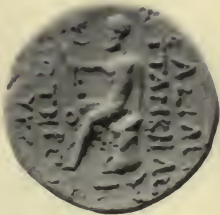
⁷ There is also one at Paris with $\text{Ξ} \varphi \Sigma$.

⁸ B.M.C. *Arabia*, p. cciii.

NUMISMATIC NOTES



4



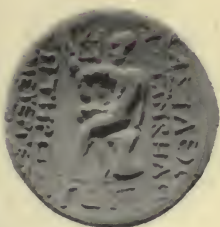
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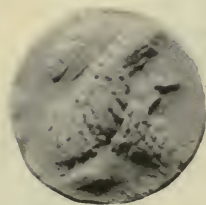
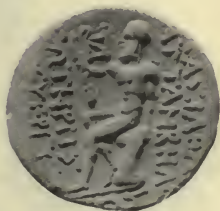
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18



25



27



NUMISMATIC NOTES AND MONOGRAPHS

No. 15



ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ

A CONTRIBUTION TO TARENTINE NUMISMATICS

By MICHEL P. VLASTO

THE AMERICAN NUMISMATIC SOCIETY
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1922

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I

NUMISMATIC NOTES & MONOGRAPHS

EDITOR: SYDNEY P. NOE

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ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ

A CONTRIBUTION TO TARENTINE NUMISMATICS

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ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ

A CONTRIBUTION TO TARENTINE NUMISMATICS

By M. P. VLASTO

The year 473 B. C. was a disastrous one for Tarentum. In that year, we learn from Aristotle,¹ although they were supported by an auxiliary force of 3000 Rhegians, the Tarentines sustained a crushing defeat at the hands of the Messapo-Iapyginians and the Peuketians. This appalling reverse took place not far from where the villages of Mottola and Gioja del Colle now stand. Perhaps the most important result was a change of the constitution and the establishment of a democracy. This triumph of the popular party, according to François Lenormant,² was prompted by the Athenian democratic spirit which, thirty years later, was to be so strongly evident in Magna Græcia, after the foundation of Thurium.

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It has long been supposed that this democratic revolution left its mark in the Tarentine coinage of the period, and that the first issue of *nomoi*,³ exhibiting on their reverse the new type of a seated male figure, is to be brought into relation with this institution of a democratic form of government at Tarentum.

Raoul Rochette,⁴ in a learned and interesting paper on this class of coins, endeavored to prove that the seated figure could be none other than the Demos, or impersonation of the Tarentine people, and this identification, although incorrect, has held the field since first expressed by this erudite French numismatist in 1833. The three accurate plates⁵ which were carefully engraved and published with his paper, owing to new types which have since come to light, are now inadequate.

Sir Arthur J. Evans in his masterly monograph "The Horsemen of Tarentum",⁶ has also given us, so far as the scope of his work would allow, an excellent chronological summary of this class of coins. For details, however, he refers the reader

to the publication by Raoul Rochette.

It is with this long neglected and very interesting series that I am here proposing to deal at some length, giving a description and a tentatively chronological classification of all the hitherto known die-combinations. As Rochette's essay is now out of print, I believe such a work will be of great service to students as this series includes some of the finest products of the Tarentine mint.

Carelli,⁷ in his monumental work, though far more complete than Garrucci⁸ for this class of coins, is often inaccurate, although some of his results are very beautiful.⁹ As I hope to show, many of his engravings are misleading and untrustworthy. In fact, neither the engraver of Carelli's plates, nor any other engraver, can successfully give the stylistic¹⁰ differences of the original coins he is depicting. His task was made increasingly difficult because most of the specimens of this series which have been preserved for us, are found, owing to their long circulation, in very poor condition only. Frequently,

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	<p>too, they are imperfectly struck. A really fine, well-centered nomos of this class with both types complete is very rare, and brilliant specimens in <i>fleur de coin</i> condition are hardly ever to be seen. Their study, in consequence, is surrounded with peculiar difficulties, and this plea is offered in extenuation of discrepancies we shall find in the interpretations of the accessory symbols on certain rare types represented only by poorly preserved examples.</p> <p>Raoul Rochette's theory that the seated figure was no other than the Tarentine Demos, is now rightly discarded by the majority of numismatists¹¹ since the controversy between Mr. E. J. Seltman¹² and the late Mr. J. P. Six¹³ about the so-called "seated Demos of Rhegium". Both numismatists, while disagreeing on the explanation of this Rhegian coin-type, rightly recognized that at Tarentum the seated figure was certainly Taras, the eponymous founder or "oekist", expressly designated¹⁴ by the inscription ΤΑΡΑΣ, on the architype of this series. They agreed to reject "the Demos theory", such abstract</p>
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and allegorical figures not having come into use earlier than the fourth century.

Sir Arthur J. Evans wrote,¹⁵ in 1889,

“Although this figure has with great probability been regarded as an impersonation of the Tarentine Demos, it is none the less true that this personification was itself assimilated to the idea of the heroic founder,” and clearly anticipated the above conclusion which tallies with the opinion expressed by the late Dr. Head in the first edition of his famous *Historia Numorum*, (1887).

The existence of a pre-Hellenic city, at Tarentum, before the arrival of the Lacedæmonian colonists, led by Phalanthos (circa 705 B. C.), may today be considered as well authenticated. The old city of the native Salentines and Messapo-Iapygians who first possessed the country, undoubtedly received at a very early date a rather important Cretan element through colonization.¹⁶

Ancient tradition¹⁷ reports that Icadios, Apollo's son, and his brother Iapyx, had

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	<p>both sailed from Crete for Italy. Iapyx after his safe arrival founded the Iapygian colony. Icadios was miraculously saved from shipwreck by a dolphin on whose back he came to the Parnassos shore. With Iapyx had also landed in Italy, Satyra, the daughter of Minos, and the eponymous local nymph of Saturium. Beloved by Poseidon, she gave birth to Taras, the heroic native founder or "oekist" of Tarentum. Taras also gave his name to a small river which runs into the sea to the west of Mare Piccolo. It is known even today under the name Tara. Local tradition adds that Taras, after reigning for many years, fell by accident into this river while offering a sacrifice to his father, Poseidon. The Tarentines, unable to find his body and believing that Taras had left them in order to rejoin his father, immediately bestowed on him Divine Honors of Heroization. On his death, according to the Greek custom, the <i>οικιστῆς</i> of each colony was worshipped as a hero, and games were often instituted in his honor.¹⁸</p> <p>Prof. Studniczka, in his brilliant mono-</p>
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<p>graph "Kyrene" (1890), maintains that throughout the Tarentine coinage, the legend ΤΑΡΑΣ refers to the mint rather than to the type, and that the hero riding the dolphin is Phalanthos, the historical oekist of Tarentum. This theory is in harmony with the lines of Pausanias (lib. x. ch. 13):</p> <p style="padding-left: 40px;">"For before Phalanthus reached Italy they say that he was cast away in the Crisæan Sea, and was brought to land by a dolphin." (Frazer's Translation, Vol. V, p. 519).</p> <p>This identification is shared by Mr. Aubrey Gwyn, a firm believer in the value of local tradition, in his very remarkable paper¹⁹ "The Character of Greek Colonization." However, Sir Arthur J. Evans, whose opinion is always entitled to great weight prefers in accordance with Pollux quoting Aristotle, to call the dolphin rider "Taras". I cannot presume to enter into a discussion of the value of the arguments adduced on either side, but for the early Tarentine coinage new data will be presented in the course of this study. These</p>	
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	<p>lead me to prefer Prof. Studniczka's theory. After the beginning of the fourth century, when the dolphin rider is first represented on coins in a boyish form more appropriate to the youthful Taras, it is more cautious to follow Sir Arthur Evans and M. E. Babelon.²⁰ It is, however, impossible to decide where and when Phalanthos ends and Taras begins. Divine honors were paid to both heroes and in early days they were probably confused under the same worship. I therefore venture to recognize on the so-called "democratic" series: Phalanthos, the historic founder of Tarentum astride on the dolphin, opposed to the seated Taras, the mythic <i>oiklōrūs</i>, just as we shall later find them similarly opposed on certain subsequent "horsemen".²¹ Taras and Phalanthos, as it might be presumed, are thus both worthily commemorated on this beautiful series of coins.</p> <p>Taras, the seated oekist, is portrayed in varied aspects showing his intimate association with the city he has founded. As a hero, he appears seated holding out a kantharos (Pl. I), and his heroic char-</p>
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acter in one case is emphasized by the introduction of a sepulchral altar in front of him (Type 33). As the founder and organizer of a hereditary monarchy which was to be continued for a few years after the end of the sixth century, we shall find him holding the royal staff (Type 50). As an active agent and as creator of the community's industrial pursuits, he is frequently represented holding the wool distaff, a reference to the famous Tarentine textile industry (Pls. II-VII). In other instances, he is depicted as an ephebos indulging in the pleasures of youth (Pls. VIII, XII and XIII). As the son of Poseidon, he holds the trident—a sign of his maritime power (Types 9 to 9B, and 15); and when grouped with the panther, he appears closely akin to the Chthonic Dionysos²² always connected at Tarentum with the heroized departed (Pls. IX-XI). *En résumé*, Taras appears as the embodiment of the race; and in honoring their oekist, the Tarentines did little more than give full scope to their religious faith and civic pride.

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	<p data-bbox="342 252 860 282">DATING AND CLASSIFICATION.</p> <p data-bbox="280 297 923 662">Owing to the absence of dependable historic data, an arrangement into definite chronological periods for the Oekists (as for convenience the writer proposes to call this class of Tarentine <i>Nomoi</i>) is an extremely difficult undertaking. As already noted Sir Arthur Evans has given the following chronological summary dividing them into three main categories:</p> <p data-bbox="314 669 919 748">Class I.—Of Archaic character (guil- loche border) B. C. 473-466.</p> <p data-bbox="314 753 919 832">Class II.—The seated Demos surround- ed by a wreath. B. C. 466-460.</p> <p data-bbox="314 837 919 916">Class III.—Alternated with early eques- trian types. B. C. 460 to c. 420.</p> <p data-bbox="280 921 923 1078">Dr. Head in his second edition of <i>His- toria Numorum</i> accepts this dating but Dr. K. Regling²³ prefers to divide the Oekists into only two distinct periods.</p> <p data-bbox="332 1083 736 1121">I.—From 473 to 450 B. C.</p> <p data-bbox="314 1126 736 1164">II.—From 420 to 400 B. C.</p> <p data-bbox="280 1169 923 1326">and even dates as low as the third century B. C., a <i>nomos</i> of this class, of abnormally low weight, formerly in the Warren col- lection.²⁴</p>
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The writer hopes to bring forward serious considerations to show that the oekists do not form, as generally assumed, a single and continuous issue, alternating with the first equestrian types, as shown by Sir Arthur Evans, but that from the very beginning of their issue they were alternated and often struck simultaneously with other early Tarentine nomoi presenting on the reverse die, opposed to the youthful hero astride on the dolphin, various types which were struck in more than one *atelier* of the ancient Tarentine mint. After the first issue of the excessively rare Tarentine incuse nomoi, minted for commerce with the Achæan cities of Magna Græcia, the chronological order of the subsequent double relief series is reasonably certain.²⁵ We are, however, still ignorant of the exact duration of the issues exhibiting in turn on their reverse, the wheel, the hippocamp, the archaic head of Taras or of his mother the local nymph Satyra. The last types of one group and the earliest of another invariably overlap.

The evidence of finds, the study of the

various dies, the close comparison of style, fabric and epigraphy of each of the above types, shows, in the writer's opinion, that many nomoi with these varied reverses were often issued simultaneously and for a longer period than has been recognized hitherto.

The date of issue of several of the latest nomoi with the wheel, hippocamp, male or female head reverses, must be brought down almost to the middle of the fifth century, i. e. about thirty-five years after the appearance of the first oekist. This I hope to show was struck at the latest c. 485 B. C. Indeed when we find the inscription ΤΑΡΑΣ on nomoi exhibiting the wheel,²⁶ hippocamp,²⁷ or juvenile head,²⁸ of late archaic or even early transitional style, denoting issues later than c. 473 B. C. (the cable border or early double circle enclosing a ring of beads or pellets having given way to the plain beaded ring), we are fully authorized to date the issue of these coins many years after the earliest seated oekists of pure archaic style (inscribed ΣΑΡΑΤ, surrounded by a cable

border in conformity with the early incuse coinage, c. 550-520 B. C.), or the first archaic hippocamp nomoi struck about 510 B. C.

In this paper it is my purpose to supplement the work of Raoul Rochette. In order to secure many of the facts that I have been able to collect, I have ransacked every available source of information, including old and recent sale catalogues, pamphlets and monographs, not neglecting several rather obsolete numismatic works now rarely consulted.

Owing to the kindness of the keepers of public cabinets and of private collectors to whom my sincerest thanks are extended, I have been able to bring together casts of a large number of oekists. This assemblage, without purporting to be considered as a *corpus*, has some fair claim to being as nearly as possible complete and up to date.

The following public and private cabinets in which oekists are represented have been personally visited, when possible, or consulted for the present study :

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	<p>Athens (National Numismatic Museum); Aberdeen University (Anthropological Museum); Bari (Museo Archeologico Provinciale); Berlin (Kaiser Friedrich Museum); Bologna (Medagliere Universitario); Boston (Museum of Fine Arts); Brussels (Cabinet des Médailles); Mr. Clarence S. Bement (Philadelphia, Pa.); Mr. W. Gedney Beatty (New York); Cambridge (Fitzwilliam Museum); Cambridge (Corpus Christi College); Copenhagen (Royal Numismatic Cabinet); Mr. Claudius Côte (Lyons); Sir Arthur J. Evans (Oxford); Dr. Walther Giesicke (Leipzig); Glasgow (Hunter Collection); Gotha (Munzkabinett d. Herzogl. Hauses); Marquis Roberto Ginori (Florence); Mr. R. Jameson (Paris); London (British Museum); Mr. de Loye (Nimes); Mr. P. Mathey (Paris); Mr. J. Mavrogordato (Hove); Milano (Brera — Medagliere Milanese); Munich (Munzkabinett); Naples (Museo Nazionale — Santangelo and Stevens Collections); New York (American Numismatic Society); New York (Metropolitan Museum); Mr. E. T. Newell (New</p>
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York); Prof. Sir Charles Oman (Oxford); Paris (Cabinet des Médailles—incl. De Luynes Collection); Parma (Regio Museo); Mr. Picard (Paris); the late Dr. S. Pozzi (Paris); Mr. E. S. G. Robinson (London); Viscount de Sartiges (Paris); Torino (Medagliere del Ré); Vienna (Kunsthistorisches Hofmuseum); Prince of Waldeck (Arolsen); Winterthur (Musée Civique); Mr. E. P. Warren (Lewes); the late Sir Herman Weber (London).

I regret that the learned keeper of the Taranto Museum, Cav. Quintino Quagliati, has been unable to send me casts of the oekists included in the very important collection under his care. I have particular pleasure in expressing in these lines my sincerest indebtedness to Mr. Sydney P. Noe, the Secretary of the American Numismatic Society who has read the proofs of this article and given me invaluable help in securing many important casts which I had been unable to obtain.

In my attempts to distribute the oekists into successive chronological divisions, I have always taken into account the inval-

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	<p>uable evidence supplied, by finds which have come to my knowledge during the last twenty-five years, in the course of repeated visits to Southern Italy and Tarento itself. Unfortunately, for obvious reasons, this evidence, which should always supply the safest and best data for fixing any chronological succession, must, nowadays, be weighed with greatest caution. Dealers or detainers of coin-hoards are invariably inclined to conceal the real circumstances of finds, and rarely take the trouble to note their composition before their dispersal. They always prefer to give unreliable or even misleading information, in order to avoid trouble with the authorities, thus depriving science of invaluable assistance.²⁹</p> <p>The epigraphic evidence supplied by Tarentum's early coinage, although very valuable, must also be taken into account rather cautiously and given weight only when supplemented by the evidence of style and fabric. We find, for instance, on some of the early incuse nomoi, the form >ΑΡΑΤ on the obverse associated with</p>
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TARAZ on the reverse of the same coin;³⁰ on others,³¹ of extreme rarity and of somewhat later style, ΖΑΡΑΤ figuring on either side. On the subsequent double relief series the forms of letters and direction of inscriptions appear often to vary at random on unquestionably contemporary issues³² and even on the obverse and reverse of the same coins, probably according to the degree of instruction, the fancy or the origin of the engravers. This condition is present on the succeeding series as well, even down to 315 B. C., when we find on a gold drachm or half stater the inscription ΑΡΑΤ retrograde.³³

This series is made simpler by the fact that with three exceptions, the obverse type is the *παράσημον*, Phalanthos, astride on the dolphin. Later we shall see how he comes to be confused with Taras. Very often the same obverse die is used with several reverse dies. At other times the same reverse die will be utilized with a new obverse die but such cases are very rare owing to the greater wear upon reverse dies. The rather long and continued

service of certain obverse dies allows us to determine with certainty the chronological succession of the reverses combined with them, using the state of wear shown or the progression of breaks or defects as criteria.

In fact, that the die criterion is the safest and most conclusive in any tentative chronological arrangement, has been fully demonstrated by the notable results obtained by such able numismatists as Messrs. P. Gardner, G. F. Hill, Sir Arthur Evans, Prof. K. Regling, Messrs. J. Mavrogordato, C. T. Seltman, Miss Agnes Baldwin and, foremost of all, by Prof. Tudeer and Mr. E. T. Newell.

Unfortunately the bad preservation of most of the existing oekists renders the die comparisons somewhat delicate, though long numismatic experience can nearly always make the necessary allowances for wear in circulation or defective striking.

Chronological conclusions based on style considerations are also very important when applied to the oekists. They were first issued when the finest archaic Ionian

art, imported during the aristocratic rule at Tarentum, was flourishing in Magna Græcia. They were struck down to c. 400 B. C., when the truly Tarentine art was beginning to attain its freest and most congenial development. The gradual variations of style displayed on the oekist series are very remarkable, but we quickly observe, as with other contemporary issues,³⁴ that the finest types with the seated oekist of purely Grecian style (viz. the master dies) have been copied, time after time, by contemporary indigenous engravers of very unequal capacity and often in a rather poor style. These are characteristic examples of the uneven work to be found in other Magna Græcian mints even during the best period. This is proved by the evidence of several finds, and is in agreement with the opinion expressed by Sir Arthur Evans in his paper "The Artistic Engravers of Terina" (*Num. Chron.*, 1912). In other instances, several types of oekists have been coarsely imitated in a very barbarous style by the "Mixo-Barbari", a very appropriate name

for the indigenous Messapo-Iapygian and Peuketian borderers. Not having any coinage of their own, they struck barbarous imitations of the Tarentine issues from the very beginning of the double relief series,³⁵ probably at Lupia or Sallentium. Reference will be made to all the plated oekists I have been able to trace and I shall describe them at the end of each group of the normal series to which they belong.

Finally I shall also include in my catalogue a few other extremely rare plated oekists, which through their artless and unintelligent design betray the work of ancient forgers. These forgeries are generally a combination of the obverse and reverse types belonging to two different issues. They are real "mules" and they supply us with valuable help in dating several normal series.

I am fully aware that the chronological succession proposed in this paper for the various types of the seated oekist, can at some points be but tentative and conjectural. Many time-limits are quite arbitrary

and when venturing to determine new datings in contradiction to those hitherto holding the field, it should be understood that the author does not make for them any claim to finality. He will feel entirely satisfied if the present undertaking proves useful for the further investigation and study of a long neglected series of coins. From an artistic standpoint this series offers us in a compendious form, a brief but invaluable record of the formation and progression of Tarentine art during the fifth century.

As most of the oekists are rare, I have given under each type the list of all specimens known to me struck from the same combination of dies, without pretending to quote all extant examples especially for the commoner types. When selecting specimens to figure on the plates I have always taken the finest procurable and, when necessary, given the photograph of more than one example, in order to give a complete representation of any particularly rare type hitherto inaccurately described. Whenever possible I have noted

the weight, size and provenance, such information often helping to identify a coin previously published by other authors.

With regard to the chronological arrangement followed in the course of the present study I have divided, for the sake of convenience, the issues of the Tarentine oekists into four main Periods summarized within their approximately chronological limits, as follows :

I.—Of archaic style (showing the influence of early Ionian and Spartan sculpture), B. C. c. 485-473.

II.—Of late archaic to early transitional style (influence of Pythagoras of Rhegium) B. C. c. 473-460.

III.—Of transitional to early fine style (influence of Peloponnesian and early Attic sculpture), B. C. c. 460-443.

IV.—Of early fine style to period of finest art (Attic influence of Pheidian sculpture and pictorial influence of Zeuxis), B. C. c. 443-400.

PERIOD I

Before c. B. C. 485.

(Refined Early Archaic Style.)

Type No. 1

ΤΑΡΑΖ (reading inwardly ↗ in f. to l.). Taras with pointed beard, hair bound with fillet, behind globular ear, and falling behind the nape of the neck in queue ending in a knot. The eye is represented as if in full face. He is wrapped in a close fitting himation, leaving bare his left breast, right arm, and part of his back behind which falls the end of his garment. He is seated r. on a four legged stool (δίφρος), holding in his right extended hand by the handle a very large kantharos, and in his left a distaff twined with wool. His feet are represented, side by side, both soles resting flat on the exergue which is formed by dots between two thin lines. Cable or guilloche border ornamented with dots.

ΡΥ ΖΑΡΑΤ (reading inwardly ↙ in f. to l.). Phalanthos naked, hair bound with fillet, the eye, almond shape, drawn facing.

He is seated on dolphin r., both arms extended, the left below the right, both hands with palms downwards. Beneath, a large cockle-shell (*Pecten jacobæus*), the hinge downwards. Border of dots between two plain circles. Slightly concave field.

a. Naples. $\mathcal{A}R$ 25.5/26 mm. 8.05 gr. Museo PL. I Naz. Fiorelli No. 1800. Garrucci xcvi. 17. cf. L. Sambon *Recherches sur les Monnaies de la Presqu'île Italique* (1870) p. 239, No. 23; cf. A. Sambon, *Rassegna Numismatica*, Anno XI, 4. p. 7.

b. M. P. Vlasto. $\mathcal{A}R$ 26/26 mm. 6.97 gr. (before cleaning, this nomos weighed 8.12 gr.). Found at Taranto (1910).

[The reverse die is fractured near dolphin's tail and opposite Phalanthos' extended arms on border.]

Type No. 1A

ΤΑΡΑΣ (↑ in f. to l.). Same type, but smaller and of imitative poor style. Cable border reversed.

Ῥ ΑΓΑΤ (↓ in f. to l.). Same type, but the fixing of arms to sides reversed.

a. M. P. Vlasto. $\mathcal{A}R$ plated. 22/23 mm. 7.10 gr. From the R. Jameson coll. (ex A. PL. I.

J. Evans coll.). *Num. Chron.*, 1889, pl. I, 7 and Burlington Fine Arts' Club Exhibition Cat. (Ancient Greek Art), 1904, pl. ci, 21).

b. M. P. Vlasto. *Æ* plated. 22/23 mm. 6.90 gr. (chisel cut, the bronze core visible on both sides).

Type No. 1. This beautiful and, in my experience, all but unique nomos, was published by Fiorelli³⁶ when describing briefly the splendid example in the Naples cabinet. Garrucci in his inaccurate engraving³⁷ of the same coin, as usual, alters the exquisite archaic purity and delicacy of the original. This coin is an admirable example of all that is finest in Græco-Ionian archaic art, and certainly one of the masterpieces of Magna Græcia's early coinage.

The obverse of the specimen that I am fortunate in possessing, owing to its worn condition strongly recalls several beautiful early grave stelæ. Sir Arthur Evans has rightly pointed out in his famous monograph,³⁸ the striking parallelism between the earliest oekists of this type and the old Spartan sepulchral³⁹ reliefs on which

the heroized deceased holding out a kantharos,⁴⁰ is represented seated upon a similar throne, alone or with his wife. In fact Type No. 1 gives us the key of the meaning of this new type.

The seated, Dionysos-like figure can represent only the heroized Taras, the traditional or heroic founder (*οἰκιστής*) of Tarentum. The kantharos held in his hand, which Rochette regarded as allusive to the Tarentine vintage,⁴¹ certainly stands here as the visible emblem of heroization. The distaff, with spirally twisted wool, although it refers to this Tarentine industry,⁴² can also be explained by its Chthonic connections,⁴³ emphasizing here the sepulchral significance of the new type.

The archaic style displayed on this remarkable coin type at once strikes us as a combination of Ionian and Spartan art. One feels the tradition of the refined early Ionian art of the end of the sixth century, in the conventional delicacy of design and the skill in rendering the formal folds of the drapery. On the other hand the huge and disproportionate kantharos, the severe

and rather stiff attitude of the seated Taras reminds us strongly of the early Peloponnesian influence. The bearded head⁴⁴ of the heroized oekist, with its early Laconian head-dress, recalls the well known life size bronze Head of a Warrior,⁴⁵ from the Acropolis at Athens, of Æginetan art, and must also be compared to the beautiful head of Zeus⁴⁶ of Olympia, also belonging to the last years of the sixth century.

The quite exceptional position of the heroized Taras on the obverse die relegating the city-arms to the reverse, the unusual size of the well-spread flan, and its thin plate-like fabric, the accurate neatness of both borders enclosing the types, the design of the exergue,⁴⁷ and above all the extreme rarity of this master die, single out this splendid nomos as the prototype of the oekist series. The explanation of the somewhat late archaic character of some of the letters of the inscriptions may be due to the foreign origin of the engraver, a true artist, possibly of Ionian birth.

The reverse die exhibits Phalanthos, both hands extended, the palms turned

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	<p>downward in suppliant guise. This type, slightly modified, had made its first appearance on three very rare nomoi,⁴⁸ with the wheel reverse, the latest of which cannot have been struck much later than c. 500 B. C. It is also frequently associated with the hippocamp reverse on nomoi of transitional style,⁴⁹ struck c. 473-460 B. C.</p> <p>On purely numismatic grounds, and taking into account also morphological considerations, we can date the issue of type No. 1 before 476 B. C. close to the time the unique tetradrachm of Ætna was struck [cf. Hill, <i>Coins of Sicily</i>, pl. IV, 13], and a few years later than the issue of the also unique, but plated, stater of Peparethos, exhibiting Dionysos, or rather Staphylos, his heroized son seated on a diphros, which strongly recalls the first Tarentine oekist. The dating proposed by Mr. W. Wroth,⁵⁰ 490-380 B. C., for all the early silver coinage of Peparethos must, I believe, be revised and placed twenty-five years earlier on the evidence of the existence of a stater of Peparethos⁵¹ (as Wroth, pl. V, 8 with the</p>
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obverse die recut) in the 1911 Taranto find. M. E. Babelon has dated the deposit of this hoard in which incuse Sybarite coins fresh from the mint occurred in great abundance, c. 507 B. C., a very few years after the overthrow of Sybaris. The much too late date of 473 B. C., hitherto proposed by all numismatists, had been accepted only in order to bring the appearance of a new Tarentine type into relation with the institution of the new democratic form of government, which took place in the year 473 B. C. and thus presumably confirm the seated Demos theory. There is no doubt, in the writer's opinion, that Sir Arthur Evans, who has accepted this late dating, must have been somewhat misled by the rather uneven style of the example of this type then possessed by him⁵² [pl. I, No. 1A. *a* and "Horsemen", pl. I, 7].

Type No. 1A. This nomos is only a plated coin, a rather weak and sketchy imitation of No. 1, the work of an indigenous forger probably of Messapo-Iapygian birth. All the archaic refinement and

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	<p>beauty of style displayed on the master die, have disappeared on this plated imitation. A glance at Plate I will show how most of the details of the original have been carelessly copied by the forger. The elegant fold of the himation's end, falling behind the back of the seated oekist, is now only indicated by a rough line and all other details are, more or less, neglected. The reverse is also very awkwardly drawn, the position of the hero's arms impossible and reversed. All the splendid equipoise of the original is ruined. The legends of Type No. 1, ΤΑΡΑΣ and ΑΓΑΤ, are copied ΤΑΡΑΣ and ΑΓΑΤ, the final Σ suppressed on the reverse for want of space.</p> <p>Taking the above into consideration I cannot accept such a late date as 473 B. C. for the first appearance of the seated oekist in the early Tarentine coinage, and I trust I shall not greatly err in assigning to Type No. 1, the approximate date of before c. 485.</p> <p>Mr. Arthur Sambon, in a short paper⁵³ concerning the Metapontine Acheloös di-</p>
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drachm,⁵⁴ expresses the opinion that, at Metapontum, the use of the cable or guilloche border was continued until 470 B. C. This border, at Tarentum, is always found on the early incuse issues [c. 550-515 B. C.], for which I cannot see my way clear to accept the much too late dates of c. 515-500 B. C., proposed lately by the same learned numismatist, in his otherwise very valuable paper on Magna Græcia's incuse coinage.⁵⁵ It is well ascertained, in my opinion, that the coinage introduced at Tarentum during the middle of the sixth century, was from the very start an importation of fully-formed Græco-Ionian art, and that the earliest incuse coins were not of primitive and rude style, but of careful and masterly work.⁵⁶ The cable border only very exceptionally⁵⁷ figures on the "wheel" Tarentine nomoi, struck from c. 520-500 B. C., for local circulation, about ten years before the cessation of the incuse series. The usual border for the earliest nomoi of this type is a raised band ornamented with dots⁵⁸ and on the latest issues of this class, after c. 500, the raised bor-

der gives place to an ordinary dotted circle.⁵⁹ The same remarks apply to the hippocamp series and there is no doubt that the cable border wholly disappears at Tarentum before 473 B. C., about ten years earlier than at Metapontum.

Various explanations⁶⁰ have been given to elucidate the choice of the cable border which was so popular on the early incuse coinage of Southern Italy. Mr. W. Deonna, the well-known archæologist has, I believe, found⁶¹ the best interpretation of this highly ornamental border which can be traced to primitive Assyrian art, and even when applied on purely numismatic ground, "*C'est un symbole religieux sans doute prophylactique*". The cable border would thus have the same purport and meaning on Magna Græcia's early coinage as the swastika on the coins of the Thraco-Macedonian coast, Corinth and Sicily, if we are to accept the new and remarkable explanation of this symbol, given by Mr. J. N. Svoronos, in his very able and important but much discussed, paper "*L'Hellenisme Primitif de la Macédoine*".⁶² The cable

border considered as a religious apotropaion is a most becoming frame for the architype of the heroized oekist.

The chronological arrangement of the succeeding group of oekists, is fixed by the regular concatenation of the dies. This group exhibits the same archaic characteristics as the earlier version of the heroized Taras. The seated oekist is however now relegated to the reverse die. The style displayed in this group is very uneven and typical of the remarkable artistic falling back soon after 500 B. C., also to be found in other mints outside of Tarentum. It is probably the result of the anarchical spirit then prevailing in consequence of the unavoidable interference of indigenous elements which it was often necessary to tolerate. This artistic confusion lasted several years at Tarentum during the long struggle with her Messapo-Iapygian and Peuketian neighbors. I would assign to the present early issue of oekists the approximate dates of c. 480-473 B. C.

B. C. c. 480-473. (GROUP I).

(Archaic Style.)

Type No. 2

ΣΑΡΑΤ (✓ in f. to l.). Phalanthos naked, the hair tied in knot on nape of neck (κόρυμβος), astride on dolphin, r., both arms extended, as if about to applaud; beneath, to l., small cockle-shell (hinge upwards), to r., cuttle-fish with eight tentacles (*Eledone moschata*, *Octopus vulgaris*). Double linear border enclosing circle of dots.

℞ Beardless Taras, the hair tied in knot on nape of neck, naked to waist as on type No. 1, holding kantharos and distaff, seated r., on diphros upon which sheep or panther's skin with scalp and fore feet hanging on side. Plain linear exergue. Cable border. Concave field.

a. London. Ɱ 21.5/22.5 mm. 8.106 gr. Br. Mus. Cat., Italy. p. 169, No. 70 (vignetted).

b. Berlin. Ɱ 24/22 mm. 7.35 gr. (not fine), ex. F. Imhoof-Blumer coll. (Greau, Paris Sale 1867, lot No. 278).

c. Berlin. Ɱ 22 mm. 8.22 gr., ex. Löbbecke PL. I. coll.

- d.* Naples. \AA 19/21 mm. Museo Naz., Santangelo coll. Fiorelli, No. 2343.
- e.* A. J. Evans. \AA 22/24 mm. 7.974 gr.
- f.* Vienna. \AA 20/21 mm. 8.10 gr. Kunsthist. Hofmus. (ex. Carelli coll.), cf. Carelli, N. I. V. T., cvii, 72, D. 80.
- g.* M. P. Vlasto. \AA 20/21 mm. 7.93 gr. From PL. I. the 1914 find (see appendix C).
- h.* Cl. Côte. \AA 20/23 mm. 8.10 gr. ex. Sir Herman Weber coll. (1918), bought from Gabrielli (Naples, 1887), cf. L. Forrer, Weber Cat., pl. 24, No. 531.
- i.* Cl. Côte. \AA 19.5/20.5 mm. 7.75 gr. (pitted by oxidation) ex. M. P. Vlasto coll.

[The reverse die shows the following breaks,⁶³ one, starting from the eye of Taras, reaches the tip of distaff; the other, less important, starts beneath extended right arm and reaches the elbow. *a* and *b* were struck before this second fracture, *c* and *f* show both die-fractures at their worst.]

Type No. 3

From same die as Type 2.

R Same type but the hair of Taras is rolled and the himation brought higher up, covering breast. Exergue dotted. Double linear border enclosing circle of dots. Outline of reverse die visible.

- a.* Paris. \AA 24 mm. 8.10 gr. Cabinet des Médailles, De Luynes coll., No. 288 (ex. Dupré & Millingen coll., cf. R. Rochette l.c., p. 201).
- b.* M. P. Vlasto. \AA 24/23.5 mm. 8.35 gr.⁶⁵
PL. I. Found at Taranto (1830), (ex. Mgr. Capyciolatro and R. Rochette colls.), cf. R. Rochette, Type II, p. 200, pl. II, 19; also M. Vlasto, *Num. Chron.*, 1907. pl. X, 3.
- c.* Cl. Côte. \AA 22.5 mm. 6 gr. (very poor). ex. M. P. Vlasto coll.
- d.* ? \AA 22 mm. 8.04 gr. Hirsch Sale (1910), XXVI, pl. IX, [ex. R. Ratto Sale, 26th April, 1909, No. 170, lot No. 766 (7.98 gr. ?)]

[The reverse die shows a break at foot of kantharos on *a*, *b*, *d*.]

Type No. 4

From same die as Type 2.

\AA Same type but the hair of Taras tied in knot lower on nape. The kantharos rather narrow. No fleece on diphros. The exergue plain. Raised border of thick double lines. Outline of reverse die visible.

a. M. P. Vlasto. \AA 20/21 mm. 7.905 gr. ex. **PL. I.** E. J. Seltman coll.

b. Paris. \AA 20.5/22 mm. 7.40 gr. (poor).

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Cabinet des Médailles. R. Rochette,
Type III, p. 201, pl. II, 20.

c. Cl. Côte. \bar{A} 20.5/22 mm. (poor). ex. coll.
C. T. Seltman.

[The obverse die now shows evidence of wear. The die on *a*, slightly damaged between distaff and kantharos and behind back of Taras.]

Type No. 5

From same die as Type 2.

\bar{R} Same type but knot of hair tied higher on nape. The usual fleece on diphros. Dotted exergue. Border of dots. Outline of reverse die visible.

a. M. P. Vlasto. \bar{A} 23.5 mm. 8.22 gr. ex. H. PL. I. P. Smith coll. (New York 1899), cf. L. Corraera, *Neapolis* 1913, Tav. VI, 19.

b. Cambridge. \bar{A} 22.5 mm. 8.20 gr. Fitzwilliam Museum (McClean coll.)

[The obverse die is now in very bad state, the reverse die is damaged beneath left hand of Taras on both *a* and *b* and also behind chignon on *b*.]

Type No. 6

ΞΑΡΑΤ (✓ in f. to l.). Phalanthos naked, the hair tied in knot on nape of

neck, riding dolphin to r., both hands extended as if applauding; beneath, small cockle-shell (hinge upwards). Border of dots.

R⁷ From same die as Type 5.

a. Bari. $\overline{\text{AR}}$ 20/20.5 mm. Museo Archeologico PL. I. Provinciale.

b. Bari. $\overline{\text{AR}}$ 19/20 mm. Museo Archeologico Provinciale.

c. M. P. Vlasto. $\overline{\text{AR}}$ 20/22 mm. 7.62 gr. (poor).

d. Naples. $\overline{\text{AR}}$ 23 mm. Mus. Naz., Santangelo coll., Fiorelli, No. 2342.

[As the reverse die does not show the fracture behind chignon as type No. 5*b*, it is evident that the obverse dies of No. 5 and No. 6 were in use simultaneously.]

Type No. 6A

From same die as Type 6.

R⁷ Same type from another die — of poor style. The animal fleece only roughly indicated. Plain linear exergue. Concave field.

a. Berlin. $\overline{\text{AR}}$ 20/22 mm. 7.82 gr. (not fine).

PL. I. Königl. Mus. Dressel l. c., p. 240, No. 86 (ex. Fox coll.).

Type No. 7

From same die as Type 6.

℞ Same type but the hair of Taras rolled above forehead. Dotted exergue. Border of rather large and irregular pellets. Concave field.

a. Paris. Ⲭ 20.5/21 mm. 7.80 gr. Cabinet des Médailles. R. Rochette, Type I, p. 200, pl. II, 18, found at Taranto (cf. R. Rochette, p. 199).

b. Berlin. Ⲭ 21/22 mm. 7.42 gr. (poor). ex. Löbbecke coll.

c. M. P. Vlasto. Ⲭ 20/21 mm. 7.23 gr. (very poor).

Type No. 7A

No traces of inscription. Same type from another die. Style later and poor.

℞ From same die as Type 7.

a. Paris. Ⲭ 20/21 mm. 8.10 gr. Cabinet des PL. I. Méd., Coll. de Luynes, No. 287.

Type No. 8

ΞΑΡΑΤ (✓ in f. l.). Same type of imitative poor style, border of dots.

℞ ΑΡΑΤ Same type, but Taras with short hair naked to waist. The kantharos

40	ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ
	<p>rests on palm of extended r. hand. Plain exergue. No border. Outline of reverse die visible.</p> <p><i>a.</i> London. AR plated. 20/21 mm. 6.784 gr. PL. II. Br. Mus. Cat., p. 169, No. 71. Ex. Payne Knight coll.</p> <p><i>b.</i> Naples. AR plated. 24 mm. (Holed.) Mus. PL. II. Naz., Santangelo Coll.; Fiorelli, No. 2344.</p> <p>Type No. 2. This rare type closely follows the first version of the heroized Taras but the work is very different and entirely of Spartan character. The style displays a roundness and heaviness of form which contrasts strongly with the early formal elegance of the archetype. The engraver has however given truer proportions to the kantharos and has happily filled up the vacant space beneath the seat with a sheep's fleece, or possibly a panther's skin (κῶδιον). The mystical purport of the latter, and its consequent appropriateness for the heroized oekist, has been clearly demonstrated by Mr. J. N. Svoronos.⁶⁴</p> <p>R. Rochette in his remarks about the diphros,⁶⁵ on which Taras is seated, neglect-</p>
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ed to point out that this four legged stool, throughout Græcian antiquity, has always been reserved to gods⁶⁶ and the heroized departed. At Tarentum the religious and chthonic character of the diphros, is fully confirmed by the choice of a similar seat as a coin type, on some exceedingly rare small divisions⁶⁷ of the nomos (probably trihemibols = $1\frac{1}{2}$ obol or $1\frac{1}{4}$ litra), at times associated with the symbol of a lustral branch.⁶⁸ This latter type must represent the sacred diphros of Taras, no doubt an important ritual object, during the religious festivities (Θεοξενία or Νεκυσία) instituted in the oekist's honor.

The new παράσημον version of Phalanthos, astride on the dolphin, with his extended hands as if applauding, has been explained by M. E. Babelon⁶⁹ as "Τάρας κελευστήs". Without discussing here this picturesque and attractive explanation, challenged and refuted by Mr. H. Willers,⁷⁰ I believe that this attitude of Phalanthos is merely intended to show the spontaneous gesture of the hero nearing the shore on which he was soon to land safely, thus illustrating

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	<p>happily the lines of Pausanias to which reference has been made.</p> <p>This obverse die [Type 2] appears to have been in use for an unusually long time and is found coupled with four varied reverses [Types 3 to 5].</p> <p>Type No. 3. The utilization of this reverse die must have been of comparatively short duration. It was soon replaced by a new one. Fortunately among the four known examples of this rare combination of dies [Type 3], two, <i>a</i> and <i>b</i>, are brilliant specimens and do full justice to the archaic refinement of this type. It betrays an early Tarentine mannerism strongly contrasting with the rather heavy style of type 2.</p> <p>The himation is now closely drawn round the body of Taras and reaches his chest much higher up than on types 1 and 2, giving to the seated oekist a rather effeminate appearance, and this is emphasized by the archaic chignon of his head-dress. Carelli⁷¹ and other early writers have described this as a female figure but R. Rochette corrected⁷² this not unreasonable</p>
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description of the androgynous type.

The charming coin (3*b*) now in my cabinet, was formerly in the collection of R. Rochette, who had obtained it from the celebrated Archbishop of Taranto, Capyciolatro.⁷³ It is of abnormally high weight (8.35 gr.) and I have elsewhere⁷⁴ drawn attention to this quite exceptional piece. The monetary standard employed for these issues must now be briefly considered.

Dr. Regling, in his masterly paper on the Italic standards (Klio, Bd VI, Heft. 3, p. 504) has weighed 127 oekists giving an average weight of 7.73 gr., with a maximum of 8.22 gr. and minimum of 5.80 gr. But if we take into account only finely preserved and normal examples of the earliest issued oekists, we shall find an average weight slightly above 8 gr. This is in accordance with the normal weight of all the early Tarentine staters from 550 B. C. to c. 450. They were struck on a system in which the nomos or stater weighed 8.23 gr. or somewhat less, following with sufficient approximation, Corinth's standard, 8.25, then prevailing in Magna Græcia.⁷⁵

44	ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ
	<p>Dr. Regling has noted the following average weights for the other early Tarentine issues :</p> <ol style="list-style-type: none"> 1. Reverse, wheel, 7.92 gr. 2. Reverse, archaic head, 7.83 gr. 3. Reverse, hippocamp, 7.95 gr. <p>But these slight variations in weight, for almost contemporary issues, must be a result of the condition of the examples weighed. Even after having taken into account the tendency of standards to fall, I cannot accept the figures quoted above as representing the normal Italic standard. It is only towards the end of the fifth century, that the weight of the normal Tarentine or Italic nomos comes down to 7.79 as established by Dr. Regling. In my opinion, even the Tarentine incuse nomoi were struck on the full weight standard, roughly in accordance with the one of about 8.29 gr. in use by the great majority of Greek Achæan cities during 550-480 B. C. The particularly thin and flat fabric of these early Tarentine incuse coins exposed them to a very rapid loss in weight through wear and oxidation, and the not</p>
	NUMISMATIC NOTES

always obvious crystallization of the silver. Dr. Regling's proposed standard for these early incuse nomoi, based as it is on average weights, although sanctioned by so high an authority as the late Dr. B. V. Head in the second edition of *Historia Numorum*, is certainly subject to error on the light side and this can only be explained as a result of condition and the small number of coins examined. Dr. Regling weighed four incuse nomoi, with the Hyakinthian Apollo [av. wt. 7.69 gr.], and ten of the normal type [av. wt. 7.54 gr.]. I have been able to trace⁷⁶ and in most cases note the weights of 44 Tarentine incuse nomoi: 33 (Phalanthos on dolphin), 8 (the Hyakinthian Apollo), and 3 combining both types. All really fine examples invariably reach to the weight of 8 gr. The finest three and therefore the heaviest specimens among the eight incuse Tarentine nomoi in my cabinet, all from different die-combinations, weigh respectively 8.06, 8.05 and 8 gr., giving an average weight of 8.037 gr., and a fine coin of this class in the de Luynes collection weighs 8.10 gr.

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	<p>In fact, since the Tarentine incuse nomoi were intended, as Dr. Regling rightly pointed out, for trade with the Achæan colonies, they could not possibly have been struck on a lower standard than the one followed at Taranto for local use.</p> <p>Type No. 4. Unfortunately, all the specimens of this extremely rare type are in a bad state of preservation. Judging from the very small number I have been able to trace, the new reverse die must have been in use for a very short time only and it would seem to have been discarded owing to premature breaking. This seated oekist has the same characteristics as type 3, and the engraver has now suppressed the animal skin on the diphros. The double circle border visible on <i>a</i>, is quite new and a simplification of the more elaborate border on type 3, which is identical with the border of the obverse die.</p> <p>Type No. 5. This time the new reverse die outlives the very much worn obverse whose damaged and deteriorated condition with almost obliterated inscription, is plainly visible on the brilliant piece <i>a</i> now</p>
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in my collection (weighing 8.22 gr. Pl. I, 5a).

At an early date the plain dotted border of type 5 had already appeared on "wheel" nomoi and is frequently met with on other contemporary types,⁷⁷ all struck before c. 473 B. C.

Type No. 6. As we have seen, the above reverse die is also found combined with a new obverse die on No. 6, but a close comparison of the Cambridge nomos No. 5b with the four examples I have been able to trace of No. 6 shows that they were contemporaneous issues, and that the reverse die of No. 5 had evidently alternated with the obverse dies of Nos. 5 and 6.

Type No. 6A. This slightly differing reverse is known only in the example in the Berlin Cabinet, and is of very early and very coarse workmanship.

Type No. 7. This rare type was first published by R. Rochette as the prototype of the oekist issue. It is remarkable for its very primitive heavy workmanship. The eye of the oekist is wide open, globular and almost protruding. The figure of Taras

seems of a piece with the diphros, and his body is not felt or indicated through the heavy drapery which hangs like an unyielding mass. The result is suggestive of the early Spartan style. Even the dotted border is very irregular. It would seem that the die must have been very hastily engraved.

Type No. 8. This plated coin is an ancient forgery. It is of quite unusual style, and is now photographed for the first time. The unduly narrow waist of the oekist is reminiscent of late Minoan art. The omission of the final ξ of the ethnic⁷⁸ on the reverse added to other peculiarities of this type, lead me to believe that we have here a new concoction of the very same engraver who forged No. IA. It is difficult to decide, however, if this interesting plated type was intended to copy No. 7 or some other contemporary normal oekist of which as yet no example has come to light.

(GROUP II)

(Later Archaic Style.)

Type No. 9

(Traces of inscription to r. √). Phalanthos naked, with rather long hair, astride on dolphin, r., his l. arm extended.⁷⁹ He holds behind him in r. a cuttle-fish with only six tentacles; beneath to l. minute cockle-shell, hinge upwards. Border of two linear circles (the inner circle thicker).

℞ Taras naked to waist, the hair short, the eye drawn as if full face, seated on diphros to left, holding out in r. hand kantharos, and in l., behind him, a trident raised from l. shoulder. Line of exergue dotted. Outline of reverse die visible.

a. Glasgow. AR 20/24.5 mm. 7.77 gr. Hunterian Museum. C. Combe (Mus. Hunt.), Tab. 55, No. VII. F. de Dominicis, *Repertorio Numismatico*, Naples, 1827, T. II, p. 406, No. 4. Carrelli, N. I. V. T. cvii, 70. Garrucci T. xcvi, 31. G. Macdonald "Greek Coins in the Hunterian Coll." T. I, p. 65. No. 9, pl. V, 3. Avellino l. c. No. 318.

b. M. P. Vlasto. *AR* 22/27 mm. 7.77 gr. ex. E.
PL. II. T. Newell coll.

c. Naples. *AR* 22 mm. Museo Naz. Santangelo
PL. II. coll. Fiorelli, No. 2373 (?) restruck on
a Corinthian pegasos probably as Babelon, *Traité*, Pl. ccviii, 10, c. 480 B. C.

Type No. 9A

From same die as Type 9.

℞ Same type from another die.

a. Vienna. *AR* 24/26 mm. 7.80 gr. Kunst.
PL. II. Hofmus. (ex. Carelli coll.). Carelli.
N. I. V. T. cvii, 69; very inaccurate.

Type No. 9B

From same die as Type 9.

℞ Same type but sheep or panther's
fleece on diphros, line of exergue double (?).
Outline of reverse die visible.

a. Parma. *AR* 18/24.5 mm. Reggio Museo.
PL. II.

Type No. 9. On this version the heroized oekist holds, in place of the distaff, the trident of his father Poseidon, symbolizing the sea-faring power of the city he has founded. We know almost nothing of the early history of Tarentum, save that, like

Sybaris and Croton, it quickly became both rich and powerful. As early as the last years of the sixth century, the Tarentines had established themselves on all the Salentine and part of the Ionian sea-coasts, as far as the Iapygian promontory. This growth came after the founding of two purely Hellenic naval colonies: Callipolis and Hydrus. These commanded both the Gulf of Tarentum and the Ionian Sea at their entrance.

Unfortunately the three known examples of this new type are all carelessly struck and not well preserved. Dr. G. Macdonald, the distinguished keeper of the Hunter collection, in his valuable catalogue of that famous cabinet, when describing the rather poorly centred, and, at that time, the supposedly unique specimen of type 9, described the trident, held in the oekist's right hand, as a staff. After a careful re-examination of the original, at my request, Dr. Macdonald informed me that the seated figure holds either a trident or forked stick. Fortunately the example *b*, recently come to light, and now in my

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	<p>collection through the courtesy of Mr. E. T. Newell, shows quite clearly the prongs of the trident. They are of a very primitive shape, the middle prong being longer than the side ones, which curve outward. This coin confirms the very poor engraving of the Hunter specimen first given by C. Combe, pl. 55, No. VII, with the conspicuous but inaccurately drawn trident. The Santangelo coin <i>c</i>, the identification of which is impossible in Fiorelli's catalogue, has only quite recently been brought to my notice. Its condition unfortunately is very poor. Moreover it is restruck on a Corinthian Pegasos of a fairly early issue, judging from the depth of the incuse square plainly visible opposite and beneath the outstretched kantharos of the seated oekist.</p> <p>Notwithstanding the evident progress of art displayed on this type, I cannot agree to the dating of c. 460 B. C., proposed by Dr. Macdonald. The changed position of the legs of the seated Taras, with the left foot drawn back so as to occupy the vacant space beneath the diphros, the refinement in the treatment of the himation, neatly</p>
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folded round the knees with one end hanging down in a conventional, but graceful, fold, are certainly distinct improvements. Nevertheless, the very broad shoulders and slim waist of the oekist, the unskilful combination of profile and frontal views, displayed on both dies of this type are suggestive of primitive art. So, too, with the double border, which finds a parallel only on type 4, the dotted line of exergue, and the type of Phalanthos on the dolphin holding a cuttle-fish, copied from the earliest "hippocamp" nomoi — all these are indications which authorize us to associate this remarkable type with the last issues of the preceding group, and to date type 9 before c. 473 B. C.

A close examination of examples *a*, *b*, *c*, shows that the small symbol beneath Phalanthos,⁷⁹ on his dolphin, is again the usual cockle-shell, but of diminutive size, with the hinge turned upwards to left. It is somewhat unskilfully drawn, but it is not an uncertain object⁸⁰ or helmet, as suggested by Carelli's engraving — a bad copy of the Hunter coin engraved by Combe in 1782.

Type No. 9A. This new reverse die is known only in the very poor Vienna specimen, formerly in the Carelli cabinet. It differs from No. 9 in that the folds of the himation are further from the feet. On Carelli's very inaccurate engraving of this coin, these folds are spread over and partly hide the right side of the diphros. Carelli, however, not having detected that his coin (type 9A) was from the same obverse die as the Hunter example, this time depicted the small cockle-shell beneath the dolphin correctly, and his engraving of the obverse type contrasts favorably with the absurd representation of the seated oekist (No. 9a).

Type No. 9B. This very charming reverse die is of a rather more advanced style and the trident, now held very close to the diphros, is of the usual shape with three upright prongs. The addition of the animal skin on the diphros is also an improvement. Many of the details are obscure owing to the worn condition of the unique Parma coin, which may have been issued a few years after Nos. 9 and 9A, in order to utilize again the same old obverse die.

PERIOD II

c. 473-460 B. C.

If the Tarentines established themselves upon the Salentine coast without quarrelling with the natives no very great period elapsed before they were at war with them. Successful in the beginning, the Tarentines were utterly defeated by the barbarians, with great slaughter in 473 B. C. This disaster and the subsequent revolution are the first events in Tarentine history to which we can assign a definite date. The Tarentines were not long in avenging their defeat first upon the Messapo-Iapygians and a few years later upon the Peuketians. Thus all the Iapygian peninsula came into their possession and Tarentum regained its former splendor and opulence under the new democratic form of government.

It is during the period of victorious prosperity almost immediately following the establishment of the new régime that I propose to ascribe the first oekist (No. 10),

upon which the seated Taras is seen surrounded by the olive wreath, a significant symbol of this victory⁸¹ of the Tarentine popular party. Associated with it is the new and symbolic legend TAPANTINON, which must be translated: (Nomos) of the Tarentine People.

Considering the extreme rarity of most of the other "wreathed" oekists, their issue must have been of very brief duration. This small group gives us a valuable chronological limit for a number of "unwreathed" oekists, some of which were certainly struck before the "wreathed" types. That all these issues are more or less contemporaries of each other, however, is proved by the use in common of certain obverse and reverse dies and by the progression of style from late archaic to transitional.

The lines of the figures and the attitude of the seated oekist have now become much less rigid, the modelling of the body is less conventional and shows greater mastery, and the faint indications of perspective show some improvement. Many

types now display an effort of the die-engravers to express a feeling of poise in the seated figure. Presumably the Tarentine school of artists must by this time have felt the influence of Pythagoras of Rhegium, known as the first sculptor to aim at rhythm and symmetry⁸² and whose Europa seated on the Bull,⁸³ erected at Tarentum⁸⁴ soon after c. 480, was so highly prized by the Tarentines.

Sir Arthur Evans has dated the Tarentine "wreathed" oekists somewhat later, B. C. 466-460, following R. Rochette,⁸⁵ in order to bring these types into connection with the appearance on the Rhegian dies of a similar type issued⁸⁶ c. 466 B. C., when the Rhegians recovered their political freedom.⁸⁷ I am far from denying that the Tarentine wreathed oekists, (of whose priority I am convinced) may have influenced the Rhegian coinage, but the appearance of the olive wreath on other contemporary Tarentine coin-types, one with the archaic head reverse (see Fig. 1), the other of the hippocamp class, confirms, in my opinion, the commemorative char-

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	<p>acter of the wreath border at Tarentum, a most appropriate token of the Democratic Victory in 473 B. C.⁸⁸ There can be little doubt that the symbolical wreath occurring on all these exceptional Tarentine nomoi, points to the same connection. We may, therefore, propose for this small wreathed issue, conjointly with the more important series of unwreathed oekists, standing in immediate die-relation to it, the approximative dates of c. 473-460 B. C.</p> <hr/> <p style="text-align: center;">B. C. c. 473-460 [Wreathed] (Late Archaic to early Transitional Style.)</p> <p style="text-align: center;">Type No. 10</p> <p>ΥΟ ΥΙΤΥΑΡΑΤ (✓ to l.). Phalanthos, naked, the hair tied in knot, astride on dolphin, to right, arms extended upwards, both hands with open palms; beneath, large cockle-shell (hinge upwards): border of dots between two linear circles.</p> <p>℞ Taras with pointed beard, the hair bound with fillet and turned up behind, naked to waist, seated to left on chair</p>
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(κλισμὸς) and leaning backwards, his l. hand holding a knotty staff resting obliquely on ground, and extending in r. hand a small upright distaff or spindle of wool. His himation is neatly folded round the waist. One end, brought over, hangs down and is terminated with a tassel. Upon the chair, a sheep or panther's skin. The oekist's left leg drawn backwards in front of the leg of chair. Plain linear exergue above dotted line. Around, wreath of olive leaves alternating here and there with olives. Concave field.

a. Paris. \mathcal{A} 24/26 mm. 7.87 gr. Cab. des Méd. (De Luynes, No. 279, ex. R. Rochette Coll., l. c., pl. III, 24, and Carelli Coll., D. No. 61, N. I. V. T. cvi, 51), R. Rochette, Type VII, 203. *Riccio Repertorio* (1852), p. 53, No. 4. Garrucci T. xcvi, 28.

b. Berlin. \mathcal{A} 21/23 mm. 7.02 gr. (poor). Königl. Mus., ex. F. Imhoof-Blumer Coll. (cf. H. Hoffman *Le Numismate*, p. 97, No. 232, ex. Fontana Coll., Trieste, with wrong reading ΤΑΡΑΣ).

c. Cambridge. \mathcal{A} 24.5/24 mm. 7.85 gr. Fitzwilliam Mus.—McClellan Coll. (ex. Paris Sale, 20 June, 1906, No. 86, ex.

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	<p>R. Jameson and A. J. Evans Colls., ex. Bunbury Sale (1896), lot No. 88).</p> <p><i>d.</i> Sir Arthur J. Evans. \mathcal{A} 24/25 mm. 7.96 gr. PL. II. ex. P. Mathey Coll. and Philipsen Sale, Hirsch XV, 285, Pl. II.</p> <p><i>e.</i> M. P. Vlasto. \mathcal{A} 23/23.5 mm. 7.74 gr. Greau 1867 Sale, lot No. 279.</p> <p>Type No. 10A</p> <p>ΑΡΑΤ (✓ in f. to l.). Same but of im- itative poor style. No border visible.</p> <p>℞ Same barbarous style.</p> <p><i>a.</i> Naples, \mathcal{A} plated 20/22 mm. Mus. Naz., PL. II. Santangelo Coll., Fiorelli, No. 2372.</p> <p>Type No. 11</p> <p>ΤΑΡΑΣ (↘ to r.). Phalanthos, the hair short, naked, astride on dolphin to l., arms extended as if to applaud; beneath, small cockle-shell (hinge upwards): border of dots on band.</p> <p>℞ Taras, the hair wavy at sides and tied in chignon behind with small fillet, wearing a plain necklace, naked to waist, seated on diphros to r., his r. hand resting on corner of seat, and extending in l. large distaff. His r. foot brought backwards, hides the front leg of diphros. Around,</p>
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wreath of olive leaves, alternating with olives. Concave field.

a. London. \mathcal{R} 23/26 mm. 7.892 gr. Brit.
PL. II. Mus. Cat., p. 169, No. 72 (vignette).
P. Gardner, "Types of Greek Coins,"
pl. 19 (reverse). *Num. Chron.*, 1889,
pl. I, 8.

b. Naples. \mathcal{R} 22/24 mm. (Very poor). Mus.
PL. II. Naz., Santangelo Coll., Fiorelli, No.
2349.

Type No. 12

ΣΑΡΑΤ (✓ in f. to l.). Phalanthos
naked, the hair rolled, astride on dolphin
to r., both arms extended as on No. 11.
The dolphin's snout long and turned up-
wards. Beneath, large cockle-shell (hinge
upwards). No border visible.

℞ From same die as No. 11.

a. M. P. Vlasto. \mathcal{R} 23/24 mm. 7.73 gr. ex.
PL. II. E. S. G. Robinson Coll.

Type No. 13

ΣΑΡΑΤ (✓ in f. to l.). Same type as
No. 12. The cockle-shell smaller: border
of dots [see No. 14R].

℞ TAPAΞ (↘ in f. to r.). Taras, the

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	<p>hair curly above nape, naked to waist, seated on diphros to l., his l. hand resting on r. corner of diphros, holding in r. hand distaff upright. Both soles resting flatly on exergue which is dotted above plain line. An olive branch starts r. and l. of exergue forming an open wreath enclosing type. Outline of reverse die visible.</p> <p><i>a.</i> Berlin. AR 22/23 mm. 7.78 gr. [oxidized]. PL. III. Dressel, Berlin Cat., p. 239, No. 81 [ex. Fox Coll.].</p> <p><i>b.</i> Cl. Côte. AR 22/23 mm. 7.95 gr. From the 1920 Gerace (?) find (see page 71).</p> <p><i>c.</i> M. P. Vlasto. AR 22/24 mm. 8.01 gr. [in f. PL. III. to r. on obverse] Δ in graffito. From the 1920 Gerace (?) find.</p> <p>[On <i>a</i>, <i>b</i>, <i>c</i>, the obverse die is damaged and shows a fracture beneath dolphin and above and to r. of cockle-shell. The reverse die shows a fracture which starting from l. elbow of Taras runs between P and A of legend. This break is larger on <i>a</i>, which shows also two new small flaws having the appearance of two letters or of a double lemniskos hanging down, outside, the right corner of diphros.]</p>
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Type No. 13A

TARΑΣ (↘ in f. to r.). Phalanthos, the hair short, on dolphin to l., of same type as No. 13, the cockle-shell larger: border of dots on band. [See No. 16E.]

Ῥ ΤΑΡ[ΑΣ?] (↘ in f. to r.). Same type as No. 13, from another die. Exergue off field.

a. Berlin. *AR* 22/23 mm. 7.85 gr. Dressel, l. c., PL. III. p. 238, No. 80.

[The obverse die is in very poor condition, fractured above head of Phalanthos and behind his loins, see also No. 16E (Pl. V) for an earlier stage of last fracture.]

The heroic character of the eponymous oekist is no longer put in evidence on these "wreathed" issues.

Taras is now represented as a patron of industry, holding the distaff — an allusion to Tarentum's famous wool-trade, the source of the city's wealth.⁸⁹

On No. 10, the knotty staff, which he holds in his left hand, is no doubt intended as a symbol of his guardianship over the Tarentine herds and flocks;⁹⁰ and the ani-

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	<p>mal fleece, at times placed on his seat, may have the same significance, should it represent, in accordance with the view expressed by R. Rochette, a sheep's fleece⁹¹ rather than a panther's skin, as was suggested by the late Mr. R. S. Pool in the British Museum catalogue.</p> <p>Type No. 10. Carelli first published this very scarce type. It is closely connected with the earlier issues by its archaic style and by the presence of the fleece on the oekist's seat. Here this seat is shaped like a chair (κλισμὸς)⁹² rather than the usual diphros.</p> <p>The engraving given by Carelli, from the nomos then in his own cabinet (now in the de Luynes collection at Paris, after having passed through R. Rochette's private cabinet⁹³), is very inaccurate.⁹⁴ The legend as represented on Carelli's engraving: ΝΥ Ν ΙΤΩΑΘΑΤ is certainly blundered and fanciful. Through the kindness of M. E. Babelon, I have myself very carefully examined, on the original coin, the remaining traces of the very much defaced inscription, and R. Rochette's rep-</p>
	NUMISMATIC NOTES

resentation of this nomos, as given on his pl. III, No. 24, corresponds strictly to the real condition of the coin and legend. Only the first eight consecutive letters of the inscription can be recognized with any certainty. There are no traces whatever of the last two letters, which figure on Carrelli's engraving, placed upside down, between the dolphin's head and the hands of Phalanthos. This is the finest known example of this type. Sir Arthur Evans kindly wrote to me, as follows, after examining the nomos, formerly in the P. Mathey and G. Philipson cabinets and now in his new collection. "So far as I can make out the inscription reads: $\text{ΙΥ} \mid \text{WITWAPAT}$ (traces of the last two letters are between the cockle-shell and dolphin's head); it can not be ZAPAT ." ⁹⁵

Although this inscription is more or less obliterated on all other examples known to me, including the well preserved one in my cabinet, the close comparison of their casts has convinced me that the real reading of the legend is $\text{WΟ} \mid \text{WITWAPAT}$, the traces of the penultimate letter showing the re-

mains of an O and not an Ω upside down. Within a few years, however, we shall see the Ω replacing the O at Tarentum. This new form of legend may be considered as a positive indication of the new democratic government.

A remarkable and extraordinarily rare nomos of early transitional style with the reverse die exhibiting the head of the local nymph Satyra, the mother of Taras, enclosed in a similar olive wreath, must certainly have been issued simultaneously with the oekist type No. 10. Very probably it was engraved in the same *atelier*. The close affinity in design and style of both obverse dies is most striking and suggests actual identity of handiwork. R. Rochette first published the specimen,⁹⁶ in brilliant condition, from the Brera cabinet of Milano. A second example in the de Luynes⁹⁷ collection, Paris, has been photographed by M. E. Babelon in the *Revue Numismatique* (1904), pl. I, 6. The authenticity of this type has been unjustly suspected⁹⁸ and the beautiful Brera nomos put aside with other spurious coins by the

late curator of that collection Mr. S. Ambrosoli.

A third example from the same dies is now in my cabinet (see Fig. No. 1). It happily proves the absolute genuineness of this important coin of the "wreathed" democratic issue. It is somewhat badly struck, and is oxidized as well (weight 8.02 gr.). It comes from the small, but highly interesting, find made in 1914 in the neighborhood of Taranto (Appendix C). There were in addition fourteen other early Tarentine nomoi of various types.



Fig. 1

Closely allied with the above types is the the very rare "hippocamp" nomos with the crab symbol, on which the dolphin-rider holds in his extended hands a similar olive wreath. I have lately added to my

collection a brilliant example⁹⁹ of this type (see Fig. No. 2) recording for the first time the obverse legend quite clearly: ΜΑΡΑΤ (abbreviation for ΤΑΡΑΝΤΙΝΟΝ). This inscription has hitherto been read incorrectly because of the unsatisfactory condition of all known examples. Both Dr. Regling¹⁰⁰ and I¹⁰¹ have read ΜΑΡΑΤ for ΥΑΡΑΤ. The recumbent Achæan form M for Σ or Ξ, must therefore definitely be suppressed from the Tarentine alphabet.¹⁰²



Fig. 2

Type No. 10A. This presumably unique plated oekist is in too poor condition to call for any special remark, but again it may possibly be the work of the same forger who engraved Nos. 1A and 8.

Type No. 11. It is needless to draw attention to the beauty and attractiveness

of this splendid oekist in the British Museum.

The head-dress with its large chignon (*κρωβύλος*), the somewhat effeminate features of the oekist, his simple and hitherto unnoticed necklace,¹⁰³ are late archaic or early transitional characteristics which find their counterpart on some of the youthful heads on the reverses of the earlier or contemporary Tarentine nomoi,¹⁰⁴ *litraë*¹⁰⁵ and *hemilitraë*, generally identified as representing the nymph Satyra. Although there can be no question as to the femininity of most of the heads on this group of coins, the evidence of oekist No. 11 seems, in some doubtful cases, in favor of a male identification: Taras.¹⁰⁶ On all the contemporary small fractions of the Tarentine nomos exhibiting on their obverse dies a cockle-shell, the youthful heads, on their reverses, are frequently but carefully enlarged copies of the oekist's head with its picturesquely changing head-dress.

Type No. 12. This unpublished combination of dies is unique in my experience

and of a slightly later issue than No. 11. The weak early-transitional style of the obverse die strongly recalls Nos. 10 and 13 and all these obverse dies are probably the work of the same native second-rate engraver. The condition of the reverse die points also to its posteriority in date, a small crack which does not appear on No. 11 being now visible, just above the oekist's forearm.

Type No. 13. This extremely rare type, now photographed for the first time, was known until lately only from the description given by the late Prof. Dressel of the then unique oekist in the Berlin cabinet, formerly in the collection of General Fox. This coin is unfortunately covered with a thick coat of oxide.

The two new and very fine examples *b* and *c* came to my attention in 1920, one having found its way into the hands of a prominent dealer in Switzerland, the other having been sold in England. They were purchased by Mr. Cl. Côte and myself about the same time. Considering the great rarity of this type and suspecting a

find, I soon learned, although as usual the information was reluctantly given, that both coins came from a hoard of about 320 Tarentine nomoi, purchased at Reggio by an Italian dealer.

This find, I was told, came from the neighborhood of Gerace (?), and included before its dispersal the following types: A few nomoi of the early wheel issue (cf. Note No. 57), many "hippocamps", the two above wreathed oekists and probably an oekist of type No. 20 (cf. Pl. VI) the balance being "horsemen" of Evans Periods I and II, the latest of which, now in my cabinet, was in absolute mint state.¹⁰⁷ The date of the deposition of this hoard may have been circa 410 B. C., a few years after the beginning of Evans Period II.

The obverse die of No. 13, of very poor transitional style, shows evident signs of wear due to its previous service with another reverse die [No. 14R, Pl. V] before being coupled with this wreathed reverse.

It is the conspicuous break of this die above the cockle-shell, that the late Dr. Dressel described as a symbol of doubtful

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	<p>meaning or a fish(?). An earlier stage of this flaw is clearly visible on No. 14R of Group II A, described below.</p> <p>Type No. 13A. This coin, unique to the best of my belief, although of a very similar type, is of a somewhat later archaic style. The obverse die, which is of finer work than No. 13, is also to be found coupled with another reverse on No. 16E (Group II B) cf. Pl. V.</p> <p>On all the following types excepting Nos. 15 and 17, the seated Taras is represented without any border, holding the usual distaff and leaning on a long plain staff (σκήπτρον) symbolizing his authority over the colony he has founded.</p> <p>For the sake of convenience I have divided the second group into two sub-series A and B according to the direction of the obverse type first to right, and after to left, following the data given by the various die-concatenations, which are rather intricate owing to their considerable number.</p>
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GROUP II (A).

Type No. 14

ΞΑΡΑΤ (✓ in f. to l.). Phalanthos naked, the hair bound with fillet and rolled above nape, seated on dolphin to r., both hands extended as if applauding; beneath, cockle-shell (hinge upwards). Border of dots between plain lines.

Ρ ΞΑΡΑΤ (↘ to r.). Taras naked to waist, the hair short, seated to l. on diphros holding in r. upright distaff and in l. a long staff resting beneath his arm-pit. His feet and himation hide the fore-leg of diphros. Dotted exergue. Concave field.

a. M. P. Vlasto. *AR* 22/23 mm. 7.98 gr. ex. PL. III. R. Jameson Coll. cf. R. Jameson's Cat., T. I. No. 96, Pl. V, 96 (ex. A. J. Evans Coll.)

b. Berlin. *AR* 22/23 mm. 7.85 gr. Dressel, l. c., p. 238, No. 75, (ex. Fox Coll.).

Type No. 14A

From same die as No. 14.

Ρ ΞΑΡΑΤ (↘ to r.). Same type but the hair of Taras tied in chignon behind nape. Plain exergue. Outline of reverse die visible.

- a. Boston. $\mathcal{A}R$ 22/24 mm. 8.19 gr. Museum PL. III. of Fine Arts, No. 04303, cf. M. F. A. Bulletin, Dec., 1907 (Vol. V), No. 30. (ex. Warren Coll., cf. Regling, l. c., No. 21, Taf. 1, ex. Coll. Greenwell (1902). ex. Moore Sale (1889), lot No. 40).
- b. Berlin. $\mathcal{A}R$ 20/23 mm. 8.00 gr. ex. Coll. Löbbecke.
- c. Munich. $\mathcal{A}R$ 21/22 mm. 7.84 gr. ex. Coll. Longo.

Type No. 14B

ΣΑΡΑΤ (✓ to l.). Same type, Phalanthos leaning further backward, his hair tied in knot on nape. Dotted border.

ΡΥ ΣΑΡΑΤ (↘ to r.). Same type but Taras with short hair, his left leg drawn back beneath diphros. Linear exergue. Outline of reverse die visible.

- a. London $\mathcal{A}R$ 21/23.5 mm. 8.03 gr. B. M. PL. III. C., p. 169, No. 74; P. Gardner, l. c., Pl. I, No. 21 (reverse); T. Combe, *Veterum Populorum et Regum Num.* London, 1814, p. 33, No. 5.
- b. Paris $\mathcal{A}R$ 21.5/22.5 mm. 7.71 gr. (very much worn). Coll. de Luynes, No. 280 (ex. R. Rochette's Coll.), cf. R. Rochette l. c., p. 205, note No. 3, struck over Corinthian Pegasos, as Babelon *Traité*, Pl. ccviii, Nos. 7 or 12.

c. M. P. Vlasto. \overline{AR} 22/25.5 mm. 7.71 gr. (holed).

d. Turin. \overline{AR} 22 mm. 7.56 gr. (poor). Med. del Rè. Fabretti, 788.

Type No. 14C

ΣΑΡΑΤ (✓ to l.). Same type from another die.

℞ TARANTINΩΣ (↘ to r.). Same type, but dotted exergue over plain line, the exergual line turned upwards to l. beneath the feet of Taras. Outline of reverse die visible.

a. Berlin. \overline{AR} 23.5 mm. 8.04 gr. Dressel, l. c., PL. III. p. 238, No. 76, Taf. XI, 172.

b. Paris. \overline{AR} 22.5/23.5 mm. 7.90 gr. (very much worn). Coll. de Luynes. No. 276, ex. R. Rochette's Coll. (cf. R. Rochette, Type VIII), l. c., p. 205, ex. Coll. Durand. Cf. Hoffman, *Le Numismate*, p. 97, No. 232, ex. Coll. Fontana = a (?).

Type No. 14D

ΣΑΡΑΤ (✓ to l.). Same type, of poor style. Phalanthos leaning backwards.

℞ TARAΝΤΙΝΩΣ (↘ to r.). Same type of poor style. The exergue plain. Outline of reverse die visible.

a. Vienna. AR plated (?) 24 mm. 7.47 gr. [not PL. III. fine], (ex. Carelli Coll.), cf. Carelli. D. No. 68, T. cvi, 59. Avellino *Vet. Num. Suppl.*, p. 37, No. 640, cf. R. Rochette, p. 204, Note No. 1.

Type No. 14E

From same die as No. 14C.

R̄ [No inscription]. Same type but the hair of Taras is short and indicated by hatches. Dotted exergue. Outline of reverse die visible.

a. Paris. AR 23/22 mm. 8.10 gr. Coll. de Luynes, No. 278. (ex. Dupré Sale (1867), lot No. 29).

b. Berlin. AR 24/24 mm. 8.19 gr. ex. Coll. Löbbecke (Cat. Rollin et Feuardent (1863), No. 683).

c. Sir Arthur J. Evans. AR 21/24 mm. 8.13 gr. PL. III. ex. F. S. Benson Sale, lot No. 23, Pl. I, (ex. Bunbury Sale, lot No. 55).

[The obverse die has now the following slight flaws: 1) above dolphin's snout; 2) in front of Phalanthos' extended hands; 3) above dolphin's tail to r.]

Type No. 14F

ΣΑΡΑΤ (✓ to l.). Same type from another die.

R/ From same die as No. 14E.

a. New York. AR 22.5/24 mm. 7.90 gr. Amer.

PL. III. Num. Soc. Coll.

b. Glasgow. AR 22/23 mm. 8.029 gr. Hunter
Coll., Macdonald, l. c., No. 7. Combe,
l. c., p. 305, Tab. 55, fig. V. Avellino.
l. c., No. 321.

[On b, the obverse die has a very large fracture hiding all the front part of the naked body beneath extended hands. On a, the early stage of this flaw is visible near Phalanthos' loins.]

Type No. 14G

From same die as No. 14C.

R/ ΤΑΡΑΣ (↘ to r.). Same type, but the linear exergue slightly curved to r. Outline of reverse die visible.

a. London. AR 21/27 mm. 8.05 gr. Brit. Mus.

PL. III. (ex. Dr. Parkes Weber Coll.).

b. R. Jameson. AR 23/25 mm. 7.91 gr. Cat.
Jameson, Pl. V, No. 95, ex. Benson
Sale, lot No. 22, Pl. I, 22.

[The reverse die is fractured to r. of the left hand of Taras and between R and A of legend].

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	<p style="text-align: center;">Type No. 14H</p> <p>From same die as No. 14F.</p> <p>℞ ΤΑΡΑΣ (↘ to r.). Same type from another die.</p> <p><i>a.</i> M. P. Vlasto. ⅆ 23/24 mm. 7.92 gr. Ex. PL. IV. Maddelena Sale (Paris, 1903), lot 249.</p> <p><i>b.</i> Cambridge. ⅆ 20.5/24 mm. 7.87 gr. Fitzwilliam Museum (Coll. McClean).</p> <p><i>c.</i> Cl. Côte. ⅆ 23/22.5 mm. 7.73 gr. (pitted by oxidation), from the 1914 find.</p> <p><i>d.</i> E. J. Seltman. ⅆ 23 mm. (H. O'Hagan, Sotheby 1908 Sale, lot No. 22.)</p> <p style="text-align: center;">Type No. 14I</p> <p>From same die as No. 14F.</p> <p>℞ From same die as No. 14G.</p> <p><i>a.</i> E. T. Newell. ⅆ 22/23 mm. 7.92 gr. PL. IV.</p> <p><i>b.</i> Naples. ⅆ 22 mm. Mus. Naz., Santangelo PL. IV. Coll. Fiorelli, No. 2371, restruck on Corinthian Pegasos with swastika reverse as Babelon, <i>Traité</i>, Pl. xxxvi, No. 10.</p> <p>I have not been able to trace the following oekists all of type No. 14, in order to determine their precise die combinations.</p> <p><i>a.</i> F. Bompois (1882 Paris Sale), No. 156.</p> <p><i>b.</i> L. Lacroix (1888 Paris Sale), No. 95.</p> <p><i>c.</i> Paris, 11 Dec., 1899 Sale, lot 67.</p>
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Type No. 14J

ΣΑΡΑΤ (✓ to l.). Same type, from another die.

ΡΥ ΤΑΡΑΣ (↘ to r.). Same type, from another die. Outline of reverse die visible.

a. M. P. Vlasto. *AR* 26/27 mm. 8.08 gr. L. W. **PL. IV.** de Moltheim Sale, No. 112. *Rev. Num.* (1904), Pl. I, No. 2.

b. Naples. *AR* 25 mm. Mus. Naz., Santangelo Coll., Fiorelli, No. 2370.

c. (?) *AR* 23/25 mm. 8.15 gr. Hirsch XVI Sale (1906), lot 26, Taf. I.

Type No. 14K

From same die as No. 14C.

ΡΥ From same die as No. 14J.

a. Cambridge. *AR* 22/23 mm. 7.07 gr. (not fine). Fitzwilliam Mus. (McClellan Coll.).

Type No. 14L

From same die as No. 14E.

ΡΥ From same die as No. 14J.

a. Paris. *AR* 20.5/21 mm. 8.20 gr., de Luynes **PL. IV.** Coll., No. 277.

b. Parma. *AR* 22 mm. 7.60 gr. (poor).

c. Berlin. *AR* 20/25 mm. 8.02 gr., ex. Coll. F. **PL. IV.** Imhoof-Blumer, (ex. Gréau Sale, lot No. 281).

80	ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ
	<p><i>d.</i> Vienna. \overline{AR} 21.5/24 mm. 7.85 gr. (ex. Carelli Coll.), cf. Carelli D, No. 69.</p> <p><i>e.</i> Cl. Côte. \overline{AR} 23/24 mm. 8.09 gr., ex. Sir Herman Weber Coll., (bought from Gabrielli [Naples, 1887]), cf. L. Forrer, Weber Cat., Pl. 24, No. 532.</p> <p><i>f.</i> (?) \overline{AR} 23 mm. Paris, 9 May, 1910, Sale (Durufé).</p> <p>[On <i>c</i>, the reverse die has a linear break starting from l. wrist of Taras and reaching the R of ethnic. Cf. No. 14J <i>a</i>.]</p> <p>Type No. 14M.</p> <p>ⲗΑΡΑΤ (✓ to l.). Same type from another die.</p> <p>ⲗ TARAΞ (↘ to r.). Same type from another die. Outline of reverse die visible.</p> <p><i>a.</i> M. P. Vlasto. \overline{AR} 20/23 mm. 8.02 gr., ex. PL. IV. Nervegna Coll., No. 276, Pl. II. L. Corra (Neapolis), 1913, Tav. VI, 21. H. Willers, l. c., T. XII, 11.</p> <p><i>b.</i> Naples. \overline{AR} 22/25 mm. (Very poor). Mus. Naz., Santangelo Coll., Fiorelli, No. 2369.</p> <p><i>c.</i> Munich. \overline{AR} 21/23 mm. 7.99 gr. Hirsch XVI Sale, lot 25.</p> <p><i>d.</i> Athens. \overline{AR} 24/25 mm. 7.78 gr. Ex. M. P. Vlasto Coll.</p> <p><i>e.</i> (?) \overline{AR} 23/25 mm. H. Osborne O'Hagan Sale, lot No. 22.</p>
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Type No. 14N

ΑΡΑΤ (✓ to r.). Same type of very early and barbarous style. Both legs of Taras in front of diphros, with feet flat on exergue. Border of large dots.

℞ (No inscription). Same type and of same work as obverse.

a. Paris. Ɱ plated, 20/21 mm. 6.37 gr. R.

PL. IV. Rochette, type IV, No. 201, Pl. III, 21.

F. de Dominicus *Repertorio* (1827), T. II, p. 208. Mionnet, T. I, No. 380.

b. Berlin. Ɱ plated 21/22 mm. 6.07 gr. (The

PL. IV. bronze core visible on both sides). Purchased in 1895.

Type No. 14O

ΖΑΡΑΤ (✓ to l.). Same type of very fine style, probably from same die as No. 14M.

℞ ΤΑΡΑΣ (↘ to r.). Same type of fine style, cf. No. 14M

a. J. Mavrogordato. Ɱ plated, 20.5/22.5 mm.

PL. IV. 6.58 gr. Hirsch XXXIV Sale, lot No.

21, Taf. I. [The bronze core visible only between cockle-shell and dolphin.]

Type No. 14P

ΖΑΡΑΤ (✓ to l.). Same type of very barbarous style.

82	ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ
	<p> ℞ ΤΑΡΑΣ (↘ to r.). Same type, of same style as obverse. <i>a.</i> M. P. Vlasto. <i>AR</i> plated, 23 mm. 6.40 gr. PL. IV. (Very poor and the core of bronze visible on both sides.) </p> <p style="text-align: center;">Type No. 14Q</p> <p> ΞΑΡΑΤ (✓ to l.). Same type from another die. ℞ ΤΑΡΑΣ (↘ to r.). Same type from another die. <i>a.</i> Paris. <i>AR</i> plated, 23 mm. 6.20 gr. Very poor. Ex. Pellerin Coll., cf. Pellerin Suppl. IV, Pl. II, 3, p. 29, 30. R. Rochette, Pl. III, 22. Mionnet, T. I, p. 139, No. 281. de Dominicis, l. c., T. II, p. 208, No. 6. </p> <p style="text-align: center;">Type No. 14R</p> <p> From same die as No. 12 (cf. Group I, wreathed series). ℞ (No inscription). Same type, but the left leg of Taras withdrawn beneath diphros, is resting on flat stool (ὑποπόδιον, χελώνη) roughly drawn. Concave field. <i>a.</i> Sir Charles Oman. <i>AR</i> 21/22 mm. 7.96 gr. PL. V. <i>b.</i> M. P. Vlasto. <i>AR</i> plated, 18/23 mm. 5.90 gr. </p>
	NUMISMATIC NOTES

PL. V. (The core is probably of lead). Ex. F. W. V. Peterson Sale, Sotheby, 19/12/'20, lot No. 7. (In f. to l. on reverse
Λ in graffito beneath diphros.)

c. Naples. AR plated? 23.5 mm. Mus. Naz., Fiorelli, No. 1801 (chisel cut on rev.).

Type No. 15

ΣΑΡΑΤ (✓ to l.). Same type, but Phalanthos is leaning backwards. (Cf. No. 14D.)

℞ (No inscription visible). Same type, but left foot of Taras drawn backwards resting on exergue. The oekist holds in r. hand in place of the long staff a trident upright, the prongs of which are visible above his l. shoulder. Concave field.

a. Paris. AR 21/22.5 mm. 6.72 gr. (very poor).

PL. V. de Luynes Coll., No. 271.

b. Milan. AR 22 mm. (Very poor.) Brera.

Types No. 14 and 14A. Both these exceedingly rare oekists, possibly struck before the end of Per. I, share the same obverse die, and no doubt must be considered as the archetypes of this new version of the seated eponymous hero. These types show

84	ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ
	<p>a conspicuous elaboration of anatomical detail together with an archaic stiffness of attitude. The relation of the right arm to the body is very awkward and typical of early art. Certain other details, such as the arrangement of the formal folds of the himation, tightly drawn round the legs of Taras on No. 14, or the androgynous appearance of No. 14A, closely connect these oekist dies to No. 11 of the wreathed issue, and all three reverses may be the work of the same artist.</p> <p>Type No. 14B. We have in this type a very good example of refined conventional archaic art. The position of oekist's left leg, drawn back to occupy the vacant space beneath the diphros, first inaugurated on the somewhat earlier types Nos. 9, 9A and 9B, and found also on most of the wreathed oekists [Nos. 10, 10A, 11 and 12], finds its parallel in early Ionian and Attic sculpture. In spite of these formal conventions, the figures of both Taras and Phalanthos are very advanced for the period, notwithstanding mannerisms in certain details characterizing the early transitional art.</p>
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The de Luynes specimen of this type is restruck over a Corinthian pegasos [see Pl. III, 14B. b]. The position of the Ϙ, clearly visible (lying flat beneath the Pegasos), the traces of Athena's helmet and profile, the depth of the incuse square allow us to identify the Corinthian stater with tolerable probability as one of the types figured on Pl. ccviii of M. E. Babelon's *Traité*, under Nos. 7 or 12.

These Corinthian coins are now dated by Prof. P. Gardner in his valuable "History of Ancient Coinage," circa 550 B. C. Many Metapontine staters, of the thick incuse fabric, belonging to the early years of the fifth century, are restruck on coins of Corinth of similar types and we note this peculiarity¹⁰⁸ on another contemporary Tarentine oekist described under No. 14I b, now in Santangelo collection, Naples. This, however, is restruck on a much earlier Corinthian pegasos, with the swastika or mill-sail reverse, dated c. 600-550 B. C. It is noteworthy that the weight of these restruck coins always corresponds to the correct Italic standard notwithstanding the

original slightly heavier weight of the Corinthian coins used as blanks.

Type No. 14C. The new form of legend, on this extremely rare type, ΤΑΡΑΝΤΙΝΟΣ, has been completed by R. Rochette with the word ΔΗΜΟΣ understood, and this was one of his best arguments, apparently confirming the seated Demos theory which has so long held the field. An unusually fine oekist in my cabinet, of a very similar type [cf. No. 16H] displays the same form of legend ΤΑΡΑΝΤΙΝΟΣ [hitherto badly read ΤΑΡΑΝΤΙΝΩΝ, owing to the incomplete or poor condition of the inscription on most of the known specimens] on the obverse die, associated with the usual Tarentine παράσημον: Phalanthos astride on the dolphin.

This form of inscription, also occasionally found on some rare early horsemen,¹⁰⁹ not being confined to the type of the seated figure, cannot refer to all these different representations and therefore must be identified with the coin. We shall accordingly read the legend ΤΑΡΑΝΤΙΝΟΣ (νόμος) as on the well known coins of Alex-

ander of Pheræ ΑΛΕΞΑΝΔΡΕΙΟΞ (στατήρ)
and ΑΛΕΞΑΝΔΡΕΙΑ (δραχμή).

Type No. 14D. The particularly awkward design of this presumably unique oekist, in the Vienna cabinet, makes me suspect that the coin is plated. There is, however, no doubt that Nos. 14C and 14D are strictly contemporary in spite of small differences in the forms of some letters of the inscriptions, especially the letter O which is square (◊) on No. 14C, and round on No. 14D. But we know from an early inscription found at Metapontum¹¹⁰ that both forms ◊ and O were at times used simultaneously and indiscriminately in southern Italy during the first years of the fifth century. The ◊, however, is met in no case, after 450 B. C.

Types No. 14E to 14N. All these not uncommon oekists do not call for any special remark, and it is very probable that many other dies or die-combinations of this rather monotonous series may have escaped my notice.

Type No. 14N. So far as I am aware this ugly and barbarous type *a*, has never been

described as a plated coin, though often published by early writers such as Mionnet, de Dominicis and R. Rochette. The Paris specimen's unusually light weight (6.37 gr.) is quite sufficient to betray this ancient forgery in spite of the good preservation of its silver coating. On the new example *b*, from the same dies, purchased during 1895, by the Berlin cabinet, the interior bronze core is plainly visible on both faces of the coin. The large ill-shaped letters of the ethnic, with the final ζ suppressed, the stiff and poor design of the feet of the seated oekist, with their soles flat on the ground in front of the diphros, are reminiscent of the earlier plated oekist of type No. 8, and this poor imitation of No. 14 may well be the work of the same forger.

Type No. 140. This plated oekist is quite remarkable on account of its very fine style and can only be the work of the same official engraver to whom we owe the normal oekists Nos. 14L to 14M. I am almost certain that the obverse of Mr. Mavrogordato's unique coin is actually issued from the same die as No. 14M, and

that, when struck, this plated oekist must have been included in the regular issue, the style and fabric of the coin precluding the possibility of its being the product of a private forger [see also No. 14R]. I shall subsequently draw attention (cf. p. 195) to another plated oekist of a later issue [cf. No. 55], now in my cabinet, struck from the very same pair of dies in use for the normal issue of that type.

This disgraceful practice, so dangerous for the coiner, may be the true explanation of the abnormal low weight of a few other oekists which have reached us with their silver plating untouched. It shows the danger of dating coins solely on weight data.

Types Nos. 14P and 14Q. It is only for comparison's sake that I have reproduced (Pl. IV) these two very barbarous plated ancient forgeries. Possibly the plated coin sold at the Bompis, 1882, Paris Sale (lot No. 155), described as exhibiting the seated Demos holding the Palladium (!) in place of the upright distaff, and which I have been unable to trace, may be but an ill-preserved example of Nos. 14P or 14Q.

90	ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ
	<p>Type No. 14R. This very rare type which, as we have already noted, shares its obverse die with the wreathed oekist of No. 13, is of very sketchy design and of a weak style similar to that displayed on some late and probably contemporary "hippocamp" nomoi.¹¹¹ The excellent preservation of the obverse die shows that this combination of dies was issued before No. 13. The abnormally light weight (5.90 gr.) of the example <i>b</i>, in my cabinet, which is of ordinary preservation [see Pl. V] and certainly from the same dies as both other known specimens of this type, has led to the discovery that my coin is plated over an unusual core of white metal, probably of lead. Sir Charles Oman's oekist of this type weighing 7.96 gr., as well as the three known examples of the wreathed issue [No. 13] struck from the same, easily identified, obverse die, are certainly normal and not plated coins. The Naples¹¹² oekist of No. 14R, disfigured by an ancient chisel-cut on the reverse, may possibly be plated, although Fiorelli does not mention it, as he invariably does in such cases (e. g.</p>
	NUMISMATIC NOTES

after his description of the coin No. 1801, in his catalogue: *arg. fod. viz.*, plated). The inference is somewhat bewildering and probably can find no better explanation than the one offered above for Mr. J. Mavrogordato's plated oekist of type 140.

Type No. 15. Unfortunately the two known examples of this new version of the seated oekist, hitherto unpublished, are both in very poor condition.

On the de Luynes' coin, however, the oekist's trident is discernible in place of the regal staff; and this extremely rare modification of No. 14, recalling the earlier No. 9, had certainly been detected by the late duke, otherwise he would not have admitted so poorly preserved a coin into his particularly choice collection.

GROUP II (B)

Type No. 16

TAPAΞ (↘ to r.). Phalanthos, naked, the hair rolled, applauding, astride on dolphin, to l.; beneath, cockle-shell (hinge upwards); border of dots between two very thin linear circles.

92	ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ
	<p> ℞ [No inscription]. Taras naked to waist, the hair short, seated l. on dipphros, holding r. hand extended (about to receive small dolphin [?]). In l. hand plain staff from beneath arm-pit (cf. No. 14). Dotted exergue. Concave field. </p> <p> <i>a.</i> Glasgow. \mathcal{A} 22/23 mm. 7.90 gr. [very much PL. V. worn]. Hunter Coll., Macdonald, No. 8, Pl. V, No. 3. Combe, l. c., Tab. 55, No. X. Avellino, l. c., p. 78, 323. Carelli, N. I. V. T. cvi, 62. F. de Dominicis, l. c., T. II, p. 406, No. 6. L. Sambon, l. c., p. 239, No. 28. </p> <p> <i>b.</i> Prince of Waldeck. \mathcal{A} 24 mm. 8.07 gr., ex. PL. V. Tanini (?) Coll. </p> <p> [The reverse die shows various flaws in field to left of seated oekist.] </p> <p style="text-align: center;"> Type No. 16A. </p> <p> From same die as No. 16. </p> <p> ℞ From same die as No. 14C. </p> <p> <i>a.</i> (?) \mathcal{A} 22.5/24 mm. 8 gr., ex. Nervegna PL. V. Sale, lot No. 277, Pl. II, 277. (Cf. L. Sambon, l. c., p. 239, No. 26.) </p> <p> [The obverse die is damaged close to the head of Phalanthos giving it a square appearance. The reproduction is from a photogravure.] </p>
	NUMISMATIC NOTES

Type No. 16B

A | T (the A to l. the T to r. of Phalanthos). Same type. Border of large dots.

℞ TARΑΣ (↘ to r.). Same type. Linear exergue. Outline of reverse die visible.

a. M. P. Vlasto. AR 21/25 mm. 7.63 gr., ex. PL. V. H. Booth Sale (Sotheby, 25, 7, 1900, lot No. 7). Babelon, *Rev. Num.* (1904) Pl. I, 3, p. 114. M. P. Vlasto, *Num. Chron.* (1907) Pl. X, No. 4. H. Willers. l. c., Taf. XII, 7.

b. Cl. Côte. AR 22/23.5 mm. 7.52 gr. [very much worn]. From the 1914 find.

Type No. 16C

[No inscription visible]. Same type, the cockle-shell smaller. Border of dots.

℞ [No inscription]. Same type. Concave field.

a. Cambridge. AR 19/23 mm. Corpus Christi PL. V. College, ex. Rev. Samuel Savage Lewis Coll.

b. M. P. Vlasto. AR 19/20 mm. 7.68 gr. [not fine]. On obv. above dolphin's head A in graffito. Found at Taranto (1920).

c. (?) AR 22 mm. 7.97 (?) gr. Hartwig Sale, Rome, 1910, lot No. 87, Pl. I (reverse possibly from another die !)=R. Ratto,

94	ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ
	<p data-bbox="453 252 960 318">Milano 13 May. 1912 Sale, Pl. IV, No. 221, wt. 8.04(?).</p> <p data-bbox="524 356 743 389">Type No. 16D</p> <p data-bbox="353 403 764 436">From same die as No. 16C.</p> <p data-bbox="317 442 960 525">R/ Same type from another die. (The diphros narrow and high.)</p> <p data-bbox="317 531 960 631"><i>a.</i> Naples. \mathcal{A} 23 mm. Mus. Naz., Fiorelli, No. PL. V. 2351 (Santangelo Coll.), cf. D. Magnan (1771) Tab. 39, XVII.</p> <p data-bbox="317 637 960 703"><i>b.</i> Cambridge. \mathcal{A} 21/23 mm. 7.54 gr. Fitzwilliam Mus., ex. McClean Coll.</p> <p data-bbox="317 710 960 802"><i>c.</i> M. P. Vlasto. \mathcal{A} 22.5/23 mm. 7.94 gr. (Cat. PL. V. Rollin et Feuarent, Paris, 1862, No. 685, bis.)</p> <p data-bbox="317 816 960 931">[The reverse is damaged on <i>b</i> and <i>c</i> near lower part of distaff and to r. of oekist's elbow.]</p> <p data-bbox="524 944 743 977">Type No. 16E</p> <p data-bbox="317 987 960 1070">From same die as No. 13A (Group I, wreathed series).</p> <p data-bbox="353 1077 837 1110">R/ Same type from another die.</p> <p data-bbox="317 1116 960 1215"><i>a.</i> M. P. Vlasto. \mathcal{A} 23/24 mm. 8.05 gr. Cf. PL. V. Babelon, <i>Rev. Num.</i>, 1904, p. 114, Pl. I. 5.</p> <p data-bbox="317 1222 960 1288"><i>b.</i> Cl. Côte. \mathcal{A} 20/21 mm. 7.69 gr. (not fine. the reverse with two chisel-cuts).</p> <p data-bbox="317 1295 903 1328"><i>c.</i> Dr. A. Giesicke. \mathcal{A} 20/23 mm. 7.72 gr.</p>
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[The obverse die fractured behind loins of Taras — cf. No. 13A for a later stage of this flaw.]

Type No. 16F

TARAS in small letters (↘ to r.). Same type, the pecten smaller. Border of dots between two linear circles.

R⁷ Same type, from another die.

a. Naples. AR 21/23.5 mm. Mus. Naz., Fiorelli, PL. V. No. 1802.

Type No. 16G

From same die as No. 16F.

R⁷ From same die as No. 16D.

a. Vienna. AR 22 mm. 5.97 gr. (broken, part of coin missing; ex. Carelli Coll.). Carelli D., No. 70.

Type No. 16H

TAPANTIN | ◇Σ (↘ to r.). Same type, very small cockle-shell. Border of small dots between linear circles.

R⁷ Same type from another die. Outline of reverse die visible. —

a. Paris. AR 21/22 mm. 7.85 gr. Raoul Rochette type VI, pp. 202, 203, Pl. III,

23 (with the incorrect reading TAPAN-TINON). E. Babelon, *Rev. Num.*, 1904, p. 114, Pl. I, 4. Mionnet Suppl., T. I, p. 281, No. 562 (the oval break of die below staff on oekist described as shield seen sideways), cf. Pellerin Suppl., IV, Tab. ii, fig. 11.

b. London. $\text{AR } 21/22$ mm. 7.71 gr. Brit. Mus. Cat., p. 170, No. 75. T. Combe, l. c., p. 33, No. 6.

c. Vienna. $\text{AR } 21$ mm. 7.79 gr. (The reverse possibly from another die.)

d. Cambridge. $\text{AR } 22$ mm. Corpus Christi College, ex. Rev. Samuel Savage Lewis Coll.

e. M. P. Vlasto. $\text{AR } 21/22$ mm. 8.01 gr., found **PL. VI.** at Taranto (1907). L. Corraera, *Neapolis*, Tav., VI, 22. H. Willers, l. c., Taf. XII, 8.

f. Clarence S. Bement. $\text{AR } 20/21$ mm.

g. Cl. Côte. $\text{AR } 21/22$ mm. 7.40 gr. [damaged by oxidation], from the 1914 find.

h. Dans le commerce. $\text{AR } 22$ mm. 7.79 gr. [not fine]. Athens, 1921.

[The reverse die on all above excepting *c*, shows a large flaw starting downwards from left hand of Taras. The earliest stage of break is on *b*, *f*, and *g*, and latest on *a* and *d*.]

Type No. 16 I

[No inscription]. Same type, but Phalanthos with curly hair. In field to right, above, large cicada; beneath, large cockle-shell. Raised border on which large pellets between two linear circles.

℞ TAPANTIN | OΞ (↙ to r.). Same type. Double linear exergue. Concave field.

a. Naples. ⱥR 20/23 mm. Mus. Naz., Fiorelli. PL. VI. No. 1808.

b. M. P. Vlasto. ⱥR 20/23.5 mm. 7.86 gr. Egger. PL. VI. 26, 11, 1909 Sale, lot No. 23, Pl. I, 23. L. Correra, *Neapolis*, l. c., Tav. VI, 20. H. Willers, l. c., Taf. xii, 10.

[The reverse die on both *a* and *b* shows a break across l. leg of diphros and on *b* a break from the hanging fold of himation and across the staff.]

Type No. 17

From same die as No. 16.

℞ ΖΑΡΑΤ (↓ to l.). Taras, with short hair, naked to waist, seated on diphros to r. extending with l. hand kantharos which he holds by its base; his r. arm raised from

shoulder; the r. hand upon the upper end of knotty staff resting upright on ground. His l. leg drawn backwards hides the fore-leg of diphros. Linear exergue. Concave field.

a. Boston. AR 23 mm. 8.03 gr. Mus. of Fine PL. VI. Arts. No. 04306; ex. Warren Coll. (K. Regling, l. c., No. 24; ex. Greenwell Coll.; ex. Montague, 1896, Sale, lot No. 27).

b. London. AR 23 mm. 7.82 gr. (pitted by oxidation, but v. fine). Brit. Mus. Cat., p. 169. No. 73; P. Gardner, *Types of Greek Coins*, Pl. I, 20 (Reverse).

c. Paris. AR 23 mm. 7.65 gr. (not fine). de Luynes Coll., No. 285.

d. Vienna. AR 22/24 mm. 7.90 gr.; (ex. Carelli Coll.). Cf. Carelli, D. No. 79, N. I. V. T., cvii, 71. Avellino, *Giornale Num.*, Naples, 1811, p. 10. T. Caronini (Milan, 1806), Tav. VI, fig. 50, p. 159.

e. M. P. Vlasto. AR 22/23 mm. 7.61 gr. [much worn].

[The obverse die is in good condition on *a* and *d*, but damaged on head of Phalanthos [cf. Pl. V, 16A] on *c* and *e*. The reverse shows many small flaws, especially to l. of seated oekist and beneath diphros.]

Type No. 17A

TARAS (↘ to r.). Same type, but the hair of Phalanthos tied in knot behind neck. Border of dots.

ΡΥ ΖΑΡΑΤ (↓ to l.). Same type, but the hair of Taras tied behind ear with small fillet. The staff is plain, and foreleg of dipetros visible between the feet of seated oekist. Outline of reverse die visible.

a. M. P. Vlasto. $\text{AR } 21/24$ mm. 7.91 gr.; ex. PL. VI. Dell' Erba Coll. L. Correr, *Neapolis*, l. c., Tav. VI, 23.

b. Prince of Waldeck. $\text{AR } 23.5$ mm. 7.91 gr. PL. VI.

c. Boston. $\text{AR } 23$ mm. 7.94 gr. Mus. of F. A., No. 04307; ex. Warren Coll. (K. Regling, l. c., No. 25, Taf. I; ex. Greenwell Coll.).

d. Prof. Sir Charles Oman. $\text{AR } 20/23$ mm. 8.05 gr.

e. Paris. $\text{AR } 21/24$ mm. 7.80 gr., de Luynes Coll., No. 284. Garrucci, T. XCVII, 29 (inscription on rev. omitted).

f. Paris. $\text{AR } 22/25$ mm. 8.02 gr., de Luynes Coll., No. 286 (restruck).

g. Paris. $\text{AR } 21/23$ mm. 7.95 gr. Cabinet des Médailles, R. Rochette, Type IX, p. 206, Pl. III, 25, ex. Dupré Sale, No. 55.

100	ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ
	<p> <i>h.</i> (?) \mathcal{A} 22/24 mm. 7.79 gr. (not fine); ex. Sir H. Weber Coll. (Sotheby, 1882. Sale), cf. L. Forrer, Weber Cat., Pl. 24. No. 583. <i>i.</i> Naples. \mathcal{A} 23 mm. Santangelo Coll., Fiorelli, No. 2348. <i>j.</i> Berlin. \mathcal{A} 25/26 mm. 8.01 gr.; ex. F. Imhoof-Blumer Coll. <i>k.</i> Cl. Côte. \mathcal{A} 23 mm. 7.70 gr. </p> <p> [The obverse die is in fine condition on <i>a, f, i, j</i>; on all others damaged in many places to the r. of Type. The reverse die has a large crack on all known specimens, from staff, crossing the chest of seated oekist and reaching kantharos.] </p> <p style="text-align: center;"> Type No. 18 </p> <p> [No inscription visible]. Same type but Phalanthos with hair short. Border of larger dots. </p> <p> \mathcal{R} ΤΑΡΑΞ (↓ to 1.). Same type but facing 1. The object (probably a distaff but possibly a kantharos) held in extended r. hand is effaced, the staff held in 1. is knotty. Outline of reverse die visible. </p> <p> <i>a.</i> Naples. \mathcal{A} 22 mm. Mus. Naz., Fiorelli, No. PL. VI. 1807. </p>
	NUMISMATIC NOTES

Type No. 19

A | T (to r. and l. of type). Same type.
Border of dots between two linear circles.

R̄ [No inscription]. Same type but the
oekist holds distaff in r.; the staff held in
l. is plain. Die outline is exceptionally
noticeable.

a. M. P. Vlasto. AR 23/25 mm. 7.26 gr. [worn]
PL. VI. from the 1914 find.

b. Naples. AR 21 mm. [Very poor.] Santan-
gelo Coll., Fiorelli, No. 2353.

[The obverse die has cracked behind
Phalanthos' loins.]

Type No. 19A

[No inscription visible.] Same type,
from another die.

R̄ Same, from another die.

a. Cambridge. AR 20/21 mm. 7.87 gr. Fitz-
william Mus.; ex. McClean Coll. (very
poor and restruck on uncertain type).
Cf. H. Hoffman, l. c., p. 97, No. 239
(poor); ex. Coll. Fontana, Trieste (read
A | Π in place of A | T., possibly from
same dies as No. 19).

Type No. 16. In 1782, C. Combe first
published this poorly preserved nomos in

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	<p>his catalogue of the Hunterian collection, as follows: "<i>Figura fere nuda sedens a s. d. tres hordei spicas, s. fusum</i>," and his highly fanciful and inaccurate engraving of the coin shows the seated oekist holding in his right hand, three disproportionally large ears of corn while he is clutching in his left hand a short distaff. Carelli's figure, taken from Combe's engraving, is equally absurd and misleading. R. Rochette, however, when referring¹¹³ to this coin, recognized that the seated figure held the usual long staff in his left hand, but did not observe that the supposed ears of corn were only flaws of the die or possibly traces of re-striking as suggested to me by Mr. G. Macdonald after a recent examination of the Hunter coin. That the coin is not re-struck is proved by the beautifully preserved nomos which has quite recently come to my notice through the kindness of Dr. K. Regling. This oekist [Pl. V, 16B], from the same dies as the Hunter example, and exhibiting the identical flaws to the right of the seated oekist, is in the Prince of Waldeck's splendid collection at Arolsen.</p>
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On this very fine coin we can see clearly that the right hand of Taras is empty. Possibly he extends his hand to receive a small dolphin,¹¹⁴ unless this too is merely one of the die-flaws that has the fortuitous appearance of a small dolphin swimming downwards from right to left. The *soit disant* stems and two other ears of corn are certainly only flaws of the die. At any rate the conception of the seated oekist, as patron of the Tarentine harvests,¹¹⁵ may now be safely dismissed.

The reverse die of this type, strikingly recalling the archaic character of No. 14, is certainly the work of the same engraver.

Type No. 16A. The community of the obverse die between the apparently unique Nerveгна coin and No. 16, shows that the interval between their issue must have been slight, but considering the worn condition of this die on No. 16A, there can be no doubt that these two issues are placed here in their proper chronological sequence. We shall again find this obverse die associated with a new reverse [No. 17, Pl. VI] and judging from the occasionally

fine condition of the die in this third association, it must have been put in use, first concurrently, and then in alternation, with the reverse of No. 16A. The highly interesting reverse die of No. 16A, with the legend TARANTINΩΣ, had already been in use for some time with another obverse die on No. 14C [Pl. III], but owing to the not quite satisfactory condition of the three specimens hitherto known, it is impossible to decide which of the issues preceded the other.

Type No. 16B. When I first published this very interesting and extremely rare variety, eleven years ago, I did not take into account its blurred condition. This is owing to a slip of the die, in the right part of the field of my coin which is otherwise in brilliant condition. I ventured to explain the letter A, placed to the left of Phalanthos, as the abbreviated signature of a mint official or engraver of the coin. The specimen in Mr. C. Côte's collection, from the same dies, is unfortunately in rather poor condition and rubbed to right of the dolphin rider. This nomos, how-

ever, shows faint traces of the letter T placed opposite the A near the border, and the inscription must be read A | T, [TA retrograde] an unusual, though not unique, abbreviation of the ethnic in the early coinage of Tarentum.¹¹⁶ This reading is confirmed by another extremely rare and hitherto unpublished oekist [see No. 19, Pl. VI] a specimen of which was included in the 1914 find with Mr. C. Côte's example of No. 16B.

Types Nos. 16C to 16G are rather common and do not call for any special remarks. Type No. 16E, however, is highly important as sharing its obverse die with the apparently unique wreathed oekist of No. 13A. The condition of this obverse die shows that the wreathed issue was preceded by No. 16E.

Type No. 16H. I have already pointed out the import of the legend TAPANTI- $\Lambda\Diamond\Xi$ associated with the type of Phalanthos riding the dolphin. The last two letters $\Diamond\Xi$ of the inscription are clearly legible only on examples *d* and *c*.

Type No. 16I. The great interest of

this remarkably rare type lies in the large cicada¹¹⁷ which appears in the field of the obverse die, behind Phalanthos above the dolphin. Fiorelli when first publishing the Naples example, on which the symbol is not struck up, added only: *dietro simb. incerto*. One must note the minute and realistic skill with which the artist has depicted the membranous, diaphanous wings of the cicada, so clearly recognizable on my fine specimen [see Pl. VI]. The quite exceptional position of this symbol is rather difficult to explain being in contradiction to the unchallenged theory of Sir Arthur Evans that at Tarentum before circa 350 B. C. all the symbols—fish, cockle-shell, dolphin, murex, cuttle-fish, cray-fish or crab—placed in the field are in no case associated with the figure of the dolphin rider. “The marine objects may themselves be regarded as an integral part of the type and as representing, like the curling waves that sometimes replace them, at times the little inner sea of Tarentum, at times the open Ionian waters, on the produce of both of which the life and indus-

tries of the city were so largely dependent."

The cicada, however, is a solar symbol often associated with Apollo. The historical founder of Tarentum, Phalanthos, born at Amyklæ,¹¹⁸ a centre of Mycenaean culture of Laconia, is only a modification of the Delphinian Apollo of Cretan descent,¹¹⁹ and this quite exceptional cicada-symbol is thus appropriate for the Amyklæan Phalanthos. Should this explanation be rejected, we might consider as an alternative that the cicada represents a *marque d'atelier*, possibly dedicated or situated near the Temple of the Hyakinthian Apollo of the city.

It is highly probable that the several different "*botteghe*" or "*ateliers*", of the early Tarentine mint may have been dedicated to the deities and state patrons of the city. I am rather inclined to consider the hitherto unexplained and often conspicuous single letters that appear in the field of the earliest horsemen of late archaic style struck c. 450 B. C., or somewhat earlier [see p. 112] as mint marks of some of

the Tarentine ateliers (with the exception of Θ, probably an early engraver's signature) the letter Π or Π standing for Poseidon,¹²⁰ Α for Apollo, and Τ for Taras. Cf. Evans, Pl. II, 2 and 4 with Π, Evans, Pl. II, 5 (with inverted Α near the left elbow of Phalanthos), and Evans, Pl. II, 1, with Τ.

Type No. 17. In spite of the very fine workmanship of this rare version of the eponymous hero, this oekist must be included in the present group because its obverse is from the same die as Nos. 16 and 16A. The peculiar position of the right arm and hand of Taras is also found on contemporary types of Rhegium and shows clearly the influence of early fifth century Attic models.

Type No. 17A. This type, very similar to that preceding, is much more common but of equal merit, and both these reverse dies may well be the work of the same artist.

Type No. 18. The Naples oekist seems to be unique, but owing to its defective striking it is impossible to ascertain if this nomos is a replica of Nos. 17 and 17A or

a modification of the following No. 19.

Type No. 19. This extremely rare oekist happily confirms the reading of the unusual form of the ethnic Α | Τ, separated by the type, submitted for No. 16B, the letter Τ being very distinct on the original in my collection [cf. Pl. VI, 19a].

PERIOD III

Circa B. C. 460-443.

It must of course be understood that the time limits assigned to this period are only approximate. There is no historical information for this interval that can supply any help in our classification. It will however hardly be doubted that it is in the years immediately following c. 460 B. C., that the first issues of Tarentine nomoi with the horseman, of very early transitional style, finally superseded the latest hippo-camp and youthful head reverses. These were probably struck during certain agonistic festivities, together with the oekists, some of which are combined with strik-

ingly similar obverse dies.¹²¹ I have not been able to trace any early horseman actually sharing the same *παράσημον* die with an oekist, though, it is well known,¹²² that some "wheel" and "archaic youthful head" nomoi have the same obverse die in common. I have in my collection two nomoi of early transitional style, one with the hippocamp, the other with the head of Satyra, both struck from the same obverse die. We may therefore surmise that the oekists and the contemporary early horsemen were probably issued in different *ateliers*. The style and morphological succession of their obverse types are unquestionably similar in both series, and there can be little doubt of their contemporaneity. This is also confirmed at times by epigraphic evidence, and by the contents of well-known finds such as the Paestum (1858) and the 1864 Calabrian hoards¹²³ which included, side by side, oekists and very early horsemen equally well preserved.

The following oekists can be classified according to the data obtained from their

die-combinations. There must also be taken into account, criteria based on the development of their workmanship which progresses rapidly from transitional to early fine style during the first ten years proposed for their issue.

The oekists of this period are characterized by an increased delicacy in rendering details and by a truer understanding of the anatomical structure of the human body, combined with a greater freedom of movement. Towards the end of this issue we shall observe the first artless attempts to render true linear perspective in the representation of the four-legged diphros.¹²⁴

On the oekists of this third period, the double circle border enclosing a ring of beads or pellets, has wholly disappeared. This border, however, is found on many of the earliest horsemen such as Type A₁ [Evans, Period I, Pl. II, 1] or B₁ [Evans, Period II, Pl. II, 4] with the same "mint mark" 7 as the archetype of the horsemen B₁ [Evans, Period I, Pl. II, 2] with the legend ΤΑΡΑΝΤΙΝΩΝ ΗΜΙ. That this horseman B₁ [Ev., Per. II] must be

brought back among the first issues of Period I is proved by the cut below, from the splendid¹²⁵ example in my collection (see Fig. No. 3). The horseman of this type published by Sir Arthur Evans, Pl. II, 4, struck on a small flan, does not show the early border surrounding the obverse type.



Fig. No. 3

Circa B. C. 460-443

(Transitional to early fine style)

Type No. 20

ΣΑΡΑΤ (reading inwardly ↘ to r.). Phalanthos naked, the hair short, astride on dolphin to l., his r. arm extended and resting his l. hand on dolphin's back; beneath, cockle-shell (hinge upwards). No border.

R̄ TAR | A< (reading inwardly the A< placed between r. leg of diphros and lower part of staff, ↙ to r.). Taras naked to waist, the hair curly, seated l. on diphros, holding distaff in r. hand and in l. with upraised arm, staff resting obliquely on ground. The fore-leg of diphros is not visible behind r. leg of the seated oekist. Outline of reverse die visible.

a. M. P. Vlasto. AR 21/22 mm. 7.14 gr. (has PL. VI. lost weight through cleaning) probably from the Gerace (?) 1920 find.

b. Naples. AR 22 mm. (Very poor.) Mus. Naz., Fiorelli, No. 1807.

c. Naples. AR 23 mm. (Not fine). Santangelo Coll., Fiorelli, No. 2346.

d. Naples. AR 21 mm. (Very poor). Santangelo Coll., Fiorelli, No. 2347.

e. Berlin. AR 21/24 mm. 7.88 gr. (not fine), ex. Löbbecke Coll.

f. P. Mathey. AR 20 mm. 6.90 gr. (?). Hirsch XV Sale (1906), p. 31, No. 387 (G. Philipsen Coll.).

Type No. 20A

From same die as No. 20.

R̄ [No inscription]. Same type, larger. Outline of reverse die visible.

114	ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ
	<p>a. Cl. Côte. <i>AR</i> 24/23 mm. 7.58 gr.; ex. Sir PL. VI. Herman Weber Coll. L. Forrer, Weber Cat., Pl. 24, No. 534.</p> <p style="text-align: center;">Type No. 20B</p> <p>From same die as No. 20.</p> <p>℞ [No inscription]. Same type, but both legs of diphros visible.</p> <p>a. Berlin. <i>AR</i> 23 mm. 7.80 gr. Dressel, l. c., p. PL. VI. 237, No. 73.</p> <p>b. Cl. Côte. <i>AR</i> 20/22 mm. 7.90 gr.; ex. L. Naville Coll.; ex. Dr. S. Pozzi Coll., cf. <i>Cat. de la Coll. Pozzi</i> by A. Dieudonné (unpublished), Pl. XII, No. 312.</p> <p style="text-align: center;">Type No. 21</p> <p>From same die as No. 20.</p> <p>℞ Taras, naked to waist, the hair curly, seated l. on diphros with its four legs drawn in perspective, holding kantharos by handle in extended r., and in l. distaff supported by l. arm. His r. foot rests on stool with lion's feet, his l. leg, naked from knee, drawn backwards. Double linear exergue, the one beneath dotted. Concave field. [Cf. No. 31, Pl. VII.]</p> <p>a. Cambridge. <i>AR</i> 21 mm. 7.83 gr. Fitzwilliam PL. VI. Museum, McClean Coll.; (ex. Con-</p>
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sul E. F. Weber Coll., Hirsch XXI
Sale, Pl. II, No. 296.)

b. Bologna. \mathcal{R} 20/22 mm. (Very poor.) *Medagliere Universitario*. Cf. Carelli, N.
I. V. T. CVII, 68.

[The obv. die of Nos. 20 and 20A is in fine condition; on Nos. 20B and 21 it shows unmistakable signs of wear, and a large flaw hides Phalanthos' left hand and crosses the dolphin's back.]

Type No. 22

TAPA | N | TINΩN (↘ above). Phalanthos naked, seated on dolphin l., r. arm extended holding strigil, l. resting on dolphin's back; beneath, prawn to l.

℞ [TAPANTI]N | OΞ (↙ to r., the OΞ beneath diphros, to r.). Taras naked to waist, seated l., on diphros, holding distaff in r. and staff in l., arm raised from shoulder (as No. 20).

a. Naples. \mathcal{R} 20 mm. Mus. Naz., Santangelo
PL. VII. Coll., Fiorelli, No. 2357.

Type No. 23

From same die as No. 22.

℞ TARAΞ (↘ to r.). Same type but

116	ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ
	<p>Taras resting l. hand on corner of diphros. Outline of reverse die visible.</p> <p><i>a.</i> Aberdeen. $\overline{\text{AR}}$ 21 mm. 7.865 gr. Aberdeen. PL. VII. University, Anthropological Museum.</p> <p style="text-align: center;">Type No. 24</p> <p>From same die as No. 22.</p> <p>$\overline{\text{R}}$ ΤΑΡΑΣ (↘ to r.). Taras naked to waist, seated to l. on diphros holding distaff in r. and staff in l. beneath arm-pit (as No. 14). Outline of reverse die visible.</p> <p><i>a.</i> M. P. Vlasto. $\overline{\text{AR}}$ 20 mm. 7.86 gr., ex. Strozzi. PL. VII. 1907, Sale, No. 844, Pl. III.</p> <p><i>b.</i> Brussels. $\overline{\text{AR}}$ 22.5 mm. 7.89 gr. Cabinet des PL. VII. Médailles, Baron L. de Hirsch Coll.</p> <p><i>c.</i> Cl. Côte. $\overline{\text{AR}}$ 21 mm. 7.45 gr. (not fine) found at Taranto, 1918.</p> <p><i>d.</i> Picard. $\overline{\text{AR}}$ 22 mm. 7.65 gr.</p> <p><i>e.</i> Marquis R. Ginori. $\overline{\text{AR}}$ 21 mm. 7.78 gr.</p> <p style="text-align: center;">Type No. 25</p> <p>[No inscription]. Taras, the hair curly, naked to waist, seated l. on diphros, holding distaff in r. and staff in l. beneath arm-pit (cf. Nos. 16A-16 I).</p> <p>$\overline{\text{R}}$ [No inscription]. Phalanthos naked, seated on dolphin l., arms extended ap-</p>
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plauding, beneath, cockle-shell (hinge upwards). No border. Outline of reverse die visible.

a. M. P. Vlasto. $\text{AR } 26/25.5 \text{ mm. } 7.70 \text{ gr. (ob-PL. VII. verse slightly double-struck), ex. Booth Sale, lot No. 7. H. Willers, l. c., Taf. XII, 9.}$

b. (?) $\text{AR } 25 \text{ mm. } 8.01 \text{ gr. Cf. Carelli D. 71.}$

Type No. 25A

From same die as No. 25.

$\text{R} \overline{\text{T}} \text{ TARA}\xi$ (\searrow to r., added). Otherwise as die of No. 25. Concave field.

a. Naples. $\text{AR } 23/24 \text{ mm. Santangelo Coll. Fi-PL. VII. orelli, No. 2350.}$

b. Turin. $\text{AR } 23/26.5 \text{ mm. } 7.86 \text{ gr. Medagliere del Ré.}$

c. M. P. Vlasto. $\text{AR } 26.5/26 \text{ mm. } 7.84 \text{ gr.; ex. Booth Sale, lot No. 7.}$

d. Berlin. $\text{AR } 24 \text{ mm. } 6.73 \text{ gr. (very poor). Dressel, l. c., p. 237, No. 74.}$

e. Copenhagen. $\text{AR } 24 \text{ mm. } 7.79 \text{ gr. Royal Num. Cab. (National Museum).}$

f. Cl. Côte. $\text{AR } 25/20 \text{ mm. } 7.64 \text{ gr. (not fine).}$

g. (?) $\text{AR } 22/24 \text{ mm. } 7.64 \text{ gr. (worn). S. Benson Sale, Pl. I, No. 24 (ex. Bunbury Sale, lot No. 88).}$

h. (?) $\text{AR } 25 \text{ mm. } 7.60 \text{ gr. Cf. Carelli D No. 70.}$

118	ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ
	<p>i. (?) AR 25 mm. 6.97 gr. (pitted by oxidation). Paris, 17, 12, 1921, Sale, <i>Coll. d'un Artiste</i>, lot No. 12 (P. Mathey).</p> <p>[The following oekists which I have not been able to trace were probably of type Nos. 25 or 25A: 1-2, Greau, Paris Sale (1867), lots Nos. 281, 282; 3, F. Bompois, Paris Sale (1882), lot No. 155; 4, Capo Sale, Rome (1891), lot No. 1096.</p> <p style="text-align: center;">Type No. 26</p> <p>T APA N TI ΝΩΝ (C) around). Phalanthos, the hair rather long and wavy, naked, seated r. on dolphin; l. hand extended with open palm; beneath, large cockle-shell (hinge upwards).</p> <p>Ry Taras, the hair short, naked to waist, seated to l. on diphros, holding distaff and staff beneath arm-pit, as No. 25 (obverse). Outline of reverse die visible.</p> <p>a. Naples. AR 23 mm. Mus. Naz., Fiorelli, No. PL. VIII. 1803, Garrucci T. XCVII, No. 30.</p> <p>b. Vienna. AR 22/26 mm. 7.34 gr. (very poor), (ex. Carelli Coll.). Carelli D. 67, N. I. V. T., CVII, 74.</p>
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- c. London. \bar{R} 22.5/23 mm. 7.85 gr. Brit. Mus., (ex. James Whittall Sale (Sotheby. 1884), lot No. 88).
- d. (?) \bar{R} 22/23 mm. 8 gr. (with Λ in graffito in f. to r. of obverse), from the Hirsch XV Sale, 1906, lot No. 386 (G. Philipsen).

Type No. 27

From same die as No. 26.

\bar{R} Taras, the hair wavy, naked to waist, seated l. on diphros holding distaff and and staff, arm raised from shoulder as No. 20. No exergue. Concave field.

- a. M. P. Vlasto. \bar{R} 23 mm. 7.26 gr. In f. to PL. VIII. l. of rev. Λ in graffito (ex. P. Mathey Coll.)
- b. London. \bar{R} 23/25 mm. 7.74 gr. Brit. Mus. Cat., No. 76. Evans, l. c., Pl. I, 9.
- c. Vienna. \bar{R} 20/22.5 mm. 7.97 gr. (ex. Carelli Coll.) Carelli D. 66, N. I. V. T., CVI, 57 (inaccurate).
- d. Cambridge. \bar{R} 23 mm. 7.31 gr. (very poor). Fitzwilliam Mus., McClean Coll. (ex. M. P. Vlasto Coll.).
- e. Cl. Côte. \bar{R} 23 mm. 7.30 gr. (not fine), (M. P. Vlasto Coll.).
- f. E. J. Seltman. \bar{R} 23 mm. 7.50 gr. Hirsch XXI Sale, No. 297 (Consul Weber).

- g. (?) Æ 23 mm. 7.98 gr. Nervegna Sa.e,
Pl. II, No. 279.
- h. (?) Æ 25 mm. 6.58 gr. Formerly at
Lewes House, E. P. Warren Coll. (K.
Regling, l. c., p. 5, No. 26).
- i. Turin. Æ 23 mm. *Med. del Ré.*

Type No. 28

[No inscription visible]. Phalanthos
naked, seated on dolphin to l., r. arm ex-
tended, resting l. hand on dolphin's back
(as on No. 20). No cockle-shell beneath.

℞ Same type, plain exergue.

- a. Naples. Æ 23 mm. (very poor). Santangelo
PL. VIII. Coll., Fiorelli, No. 2345.

Type No. 29

[No inscription visible]. Same type, but
beneath dolphin a murex (*tritonium nodi-
ferum*). Linear incuse border.

℞ Same type as No. 28, but the two
back legs of diphros show in perspective.

- a. Naples. Æ 23 mm. Mus. Naz., Santangelo
PL. VIII. Coll., Fiorelli, No. 2354. Carelli, N. I.
V. T., CVI, 56 (very inaccurate).

Type No. 30

[No inscription]. Phalanthos rather di-
shevelled, naked and ithyphallic, astride

dolphin to l., extending with r. an olive wreath and resting l. on dolphin's back. Beneath, large prawn (*palemon*).

℞ TAPA | ⚭ (The ⚭ between staff and r. leg of diphros to r.). Taras, naked to waist, seated on diphros to l. holding distaff and long staff, r. arm raised from shoulder, as on No. 20.

a. M. P. Vlasto. Ⓐ 22 mm. 7.74 gr. (ex. E. J. PL. VII. Seltman Coll.). L. Corraera, *Neapolis*, l. c., Tav. VI, 25.

b. M. P. Vlasto. Ⓐ 22 mm. 7.94 gr. (ex. F. W. V. Peterson Sale, lot No. 7).

c. Vienna. Ⓐ 23 mm. 7.63 gr. (ex. Carelli PL. VII. Coll.). Carelli D. 72, N. I. V. T., CVI, 64.

d. Cl. Côte. Ⓐ 21/23 mm. 7.38 gr. (rev. pitted by oxidation), from the 1914 find.

e. (?) Ⓐ 21 mm. 7.73 gr. Hartwig, Rome Sale, 1910, cf. No. 84 (with TAPΑΣ on obv.?).

f. (?) Ⓐ 21 mm. 7.28 gr. (poor). Hirsch XXXIII Sale, 1913, lot No. 44, from the 1908 find.

Type No. 31

From same die as No. 30.


℞ From same die as No. 21.

a. Glasgow. Ⓐ 23/24 mm. 8.21 gr. Hunter

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	<p>PL. VII. Coll., Macdonald, l. c., No. 10, C. Combe. Tab. 55, IX; Avellino, l. c., p. 77, No. 317. F. de Dominicis, <i>Rep. Num.</i> (Naples, 1827), T. 11, No. 3, p. 406.</p> <p><i>b.</i> Sir Arthur J. Evans. <i>ÆR</i> 22/23.5 mm. 7.74 gr. (ex. P. Mathey Coll.), ex. Paris, 20 June, 1906, Sale, lot No. 88, (ex. R. Jameson; ex. A. J. Evans Coll.).</p> <p>PL. VII. <i>c.</i> Vienna. <i>ÆR</i> 22/23 mm. 7.92 gr. Cf. Carelli, N. I. V. T., CVII, 67 (very inaccurate).</p> <p><i>d.</i> M. P. Vlasto. <i>ÆR</i> 22/23 mm. 7.20 gr. (somewhat worn). Ratto, Genova, April 1909, Sale, lot No. 769.</p> <p style="text-align: center;">Type No. 32</p> <p>From same die as No. 30.</p> <p>℞ Taras naked to waist, seated to l. and leaning forward on chair, the four legs of which are drawn in perspective, extending in r. hand kantharos (?) and holding in l. distaff. He rests r. foot on stool, and his l. leg is drawn backwards.</p> <p><i>a.</i> M. P. Vlasto. <i>ÆR</i> 20 mm. 7.90 gr. (very poor PL. VII. and badly worn), ex. Caprotti Coll.</p> <p><i>b.</i> Cl. Côte. <i>ÆR</i> 21/23 mm. 7.05 gr. (very much PL. VII. corroded by oxidation and bad cleaning).</p>
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Type No. 33

Taras, the hair wavy, bound with fillet, some curls reaching the nape of his neck, naked to waist, seated to l. on diphros; holding in extended r. hand by handle, a kantharos inclined over an altar which is garlanded with an olive wreath and crowned with a triangular roof ornamented right and left with volutes. The altar is placed on a square base. Taras holds in his l. hand a very long-handled distaff inclined against his l. arm. His r. foot rests on base of altar, and his l. on ground, partly hiding fore-leg of diphros. Border of small dots.

R TAPAN | TI | NΩN (in small letters around and above ). Phalanthos, the hair long and blown backwards by the breeze, naked, seated on dolphin to r., his l. hand extended with open palm, resting r. hand on dolphin's back. Beneath, cockle-shell (hinge upwards). Outline of reverse die visible.

a. Cambridge. AR 23 mm. 8 gr. Fitzwilliam PL. VIII. Mus., McClean Coll.

b. Paris. AR 22/23 mm. 7.75 gr. de Luynes PL. VIII. Coll., No 270 (ex. Dupré Coll.).

124	ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ
	<p><i>c.</i> Paris. \AA 25 mm. 8.01 gr. Cabinet des Méd., No. 275, de Luynes Coll. (ex. R. Rochette Coll.). R. Rochette, Type XIII, p. 209, Pl. IV, 34.</p> <p><i>d.</i> London. \AA 21/22 mm. 7.97 gr. Brit. Mus. Cat., No. 85. Evans, l. c., Pl. I, 11.</p> <p><i>e.</i> London. \AA 22/23 mm. 7.88 gr. (not fine). Brit. Mus. Cat., No. 86 (ex. Millingen Coll. (?))</p> <p><i>f.</i> Berlin. \AA 22/23 mm. 8.03 gr. Dressel, l. c., No. 84, Taf. XI, 175 (ex. Fox Coll.).</p> <p><i>g.</i> Berlin. \AA 21/23 mm. 7.98 gr. Dressel, l. c., No. 85 (ex. Prokesch Coll.).</p> <p><i>h.</i> Vienna. \AA 20/22 mm. 6.81 gr. (very poor), ex. J. Greau Sale, No. 28 (?).</p> <p><i>i.</i> Vienna. \AA 23 mm. 7.96 gr. (ex. Carelli PL. VIII. Coll.). Carelli D. 77, N. I. V. T., CVII, 65 [cf. Garrucci T. XCVII, blundered representation with a rev. copied from R. Rochette's Pl. IV, 36, belonging to another type].</p> <p><i>j.</i> Naples. \AA 20/25 mm. (Worn). Mus. Naz., Santangelo Coll., Fiorelli, No. 2367 [cf. L. Sambon, l. c., p. 239, No. 29]. P. Magnan Miscell., T. I, Tab. 39, XVIII. Avellino, p. 77, No. 320; F. de Dominicis, T. II, p. 406, No. 5.</p> <p><i>k.</i> M. P. Vlasto. \AA 23/25 mm. 8 gr. Frankfurt/a/M. 1902 Sale, No. 219 (ex. Imhoof-Blumer Coll.).</p> <p><i>l.</i> Cl. Côte. \AA 22/25 mm. 7.76 gr., ex. M. P.</p>
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Vlasto Coll.; ex. Paris 22 May, 1908,
Sale, Pl. I, 16; ex. Caprotti Coll.

m. De Loye. \AA R 23 mm. 7.80 gr. (poor).

n. New York. \AA R 23 mm. 7.97 gr. (Metropoli-
tan Museum) J. P. Morgan Gift (ex.
J. Ward Coll.). Cf. G. F. Hill, Ward
Cat., p. 54, No. 23.

[The obv. die shows a very small flaw
on distaff near the oekist's shoulder on *a*,
j, and *m*; this break is in a more advanced
stage on *b*, *c*, *d*, *e*, *f*, *g*, *k*, *l*, *n*, and reaches
the border on *h* and *i*. A glance at the
three coins reproduced on Pl. VIII, shows
clearly the advancing wear and the princi-
pal phases of this break.]

Type No. 34

Same die as No. 26, recut and repaired.

\AA R Taras, the hair short and wavy,
naked to waist, seated to l. on diphros,
holding kantharos and distaff, his r. foot
resting on stool with lion's feet (same type
as No. 21, but without exergue). Outline
of reverse die visible.

a. Vienna. \AA R 22/24 mm. 8.01 gr.

PL. VIII.

b. M. P. Vlasto. \AA R 25/26 mm. 7.80 gr., ex. E.

PL. VIII. J. Seltman Coll.

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	<p>c. Paris. AR 23/27 mm. 7.95 gr. Cabinet des Médailles. R. Rochette, Type XII, p. 208, Pl. IV, 32. <i>Rev. Num.</i> (1905), p. 68, No. 45, Pl. II.</p> <p>d. Paris. AR 21/23 mm. 7.96 gr. de Luynes Coll., No. 272 (ex. R. Rochette Coll.). R. Rochette, Pl. IV, 33.</p> <p>e. Glasgow. AR 23/25 mm. 7.60 gr. (poor). Hunter Coll., Macdonald, No. 12. C. Combe, l. c., Pl. 55, No. VI. Avellino, l. c., p. 77, No. 319. Carelli, N. I. V. T., CVII, 66.</p> <p>f. Munich. AR 20/20.5 mm.</p> <p>g. Copenhagen. AR 23/25 mm. 7.64 gr. (not fine).</p> <p>h. Berlin. AR 22/23 mm. 7.88 gr., ex. Löbbecke Coll.</p> <p>i. Berlin. AR 20/21 mm. 7.44 gr., ex. Löbbecke Coll.</p> <p>j. Sir Arthur Evans. AR 23/25 mm. 7.194 gr. (poor).</p> <p>k. E. T. Newell. AR 22.5/25 mm. 7.73 gr. (ex. M. P. Vlasto Coll.) from the 1914 find.</p> <p style="text-align: center;">Type No. 35</p> <p style="text-align: center;">ΤΑΡΑ[ΝΤΙΩΩΝ] (around type Ⓢ).</p> <p>Same type turned to left, of weak, imitative style.</p> <p> R^{γ} Same type (?) Concave field.</p>
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a. M. P. Vlasto. AR plated, 19/20 mm. 6.93 gr.
PL. VIII. (The bronze core visible on edge.)

Types Nos. 20 and 20A. I am inclined to date the issue of this type immediately after the striking of the earliest horsemen of Type A1 and B1, cf. Sir Arthur Evans's First Period, which suggest very primitive art, and were, in my opinion, struck possibly even earlier than 460 B. C., in spite of the epigraphic evidence pointing to a somewhat later date. The inscriptions carefully noted on all the oekists of my Second Period are varied at random, and show, as already noted, the unreliableness of epigraphy as a criterion at Tarentum during the greater part of the fifth century. [cf. Fig. No. 4.]

The long use of the obverse die of No. 20, (found coupled with at least four reverse dies), provides us with valuable criteria for placing other closely connected types of oekists in their probable chronological succession.

The seated hero on the reverse, strongly recalls No. 19 of the preceding Period, and is of a slightly more advanced transi-

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	<p>tional style. The oekist's figure has lost much of its rigidity especially on the somewhat later No. 20B struck when the obverse die shows unmistakable signs of long striking. These oekists are all very rare and are not mentioned by either Carelli or R. Rochette. Their style is rather weak and closely agrees with that of one of the early horsemen depicted by Sir Arthur Evans [Pl. II, 3,9 and Pl. XI, 1], and others¹²⁶ which have come to light since 1889. That all belong to these early issues is proved by their die-combinations.</p> <p>Type No. 21. This last utilization of the obverse die, now badly damaged, with a new version of the heroized oekist, considering the rarity of the type, must have been quite exceptional, and is, I believe, only a mule of No. 31 described hereafter.</p> <p>Types Nos. 22, 23 and 24. These three oekists share the same obverse die on which Phalanthos holds in his right hand a strigil. The Naples and Aberdeen coins of the first two types appear to be unique, all three are certainly the work of</p>
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the same engraver. This obverse die comes in use again during Period IV on Nos. 56 and 56A.

Types Nos. 25, 25A. This rather common type is only a revival of the monotonous version so frequently met during the previous period but now displaying the same weak transitional style noted above. The only interest of this type lies in the exceptional transfer of the seated oekist's type to the obverse die, and in its rather flat and spread fabric also to be noticed on the following very rare contemporary types Nos. 26 to 34.

Type No. 26. The obverse of this type like Nos. 22, 24, presents the legend ΤΑΡΑΝΤΙΝΩΝ, with the Ω in place of O and is of a remarkably advanced style for the period. The cockle-shell symbol is an exquisite representation of the *Pecten-Jacobæus*, much appreciated even today by the inhabitants of modern Taranto under the name of *Pettine*. The appearance of the Ω in the inscription at this early date can be explained by the commercial relations of the Spartan City with Ionia and its

Magna Græcian colony of Velia, whose earliest coinage, from c. 500 B. C., had adopted the Ionian alphabet.¹²⁷ In this it was to be followed a few years later by Thurium (after c. B. C. 443) where a predominant Ionic element was mingled with the Athenian colonists. An exceptional and somewhat earlier horseman from my collection is illustrated here (see Fig. No. 4) owing to the close agreement of its



Fig. No. 4

obverse type with the above oekist. It bears the same form of legend T | APA | N | T | ΙΩΝ, but it has the earlier form TAR | ANTI | NON around the horseman.

I have in my collection a second example of this remarkable horseman from the same dies, showing quite clearly the earlier

form R of the inscription on the reverse. The Berlin example of this type [Dressel, l. c., p. 242, No. 95] confirms this reading, though the coin is somewhat worn, and the end of inscription obliterated.¹²⁸

Type No. 27. This oekist which shares the same obverse die with No. 26 shows strong Attic influence and makes one think of this figure as a slightly older type of those youthful gods seated in the east frieze of the Parthenon.¹²⁹ The himation is no longer represented with stiff formal folds. We can now trace an effort at freedom in the smaller folds made by the movement of the legs, while the larger folds still retain the conventional form.

It must be noted here that the beautiful example depicted on Pl. VIII, 27*a* has in the field to right of the oekist's elbow the letter Α of an early form incised (graffito). I have been able to trace this letter Α generally shaped Α or Α on many oekists that have passed through my hands [No. 13 *c*, No. 14R *b*, No. 16C *b*, No. 26 *d*, No. 56A *c*]. This letter Α is probably only the initial of Α[ΝΑΘΑΜΑ], showing

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	<p>that these coins were dedicated as offerings for a special religious purpose in the temples of one of the gods or state patrons, the character of the incised letter apparently precluding the reading of A for A[ΕΘΛΟΝ] or prize money as on the celebrated Metapontine coin though, should this last interpretation perchance be the right one. our oekists would be a most becoming prize for the winners of games instituted in the honor of the two principal Tarentine state patrons: Taras and Phalanthos.</p> <p>Owing to the exceptional low weight of the example <i>h</i> of this type, 6.58 gr., Dr. K. Regling dates it c. 281 B. C., after the reduction of the Tarentine nomos to about 6.80 gr. on the basis of the Roman six-scruple standard.¹³⁰ This extraordinarily low weight should receive the explanation proposed for Mr. J. Mavrogordato's plated oekist. [Type 140.] Mr. E. P. Warren has kindly informed me that he cannot now trace this coin at Lewes House, and as it is not to be found in the Boston Museum of Fine Arts, it has been impossible for me to secure a cast in order to ascer-</p>
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tain if it was actually struck from the dies of No. 27.

Type No. 28. This oekist without the cockle-shell beneath the dolphin seems to be quite unique. In other respects it is very similar to our No. 20A. The coin is very poorly preserved and of very weak transitional style.

Type No. 29. This highly interesting type, also in the Santangelo collection at Naples, is presumably unique and hitherto known only from Carelli's engraving which is very inaccurate owing to the very poor condition of the coin.

The usual cockle-shell is here replaced by a very realistic murex-shell (*tritonium nodiferum*) known today at Taranto under the popular name of *Buccino*. The obverse type is surrounded by a linear border *incuse*, unique in all the Tarantine series. The *tritonium nodiferum* must not be confused with the true purple-shell or *Murex brandaris*, of which an exquisite representation is to be found on the earliest gold stater,¹³¹ struck at Tarentum. It also figures on one of the Tarentine nomoi with

the head of Nymph Satyra on the reverse, which may be dated a few years earlier than our oekist. Garrucci's representation of this extraordinarily rare nomos, Pl. XCVII, 17, taken from the Bunbury specimen now in my cabinet,¹³² is very inaccurate as one can judge from the Fig. No. 5. The inscription reads ΖΑΡΑΤ and not ΤΑΡΑΞ, as in Garrucci's engraving.



Fig. No. 5

Type No. 30. This new obverse die is also found combined with three very different reverses which connect their issues with those of Nos. 20 and 21. Phalanthos is represented holding an olive wreath, perchance commemorating a victory of the Tarentines over the Peuketians. He is dishevelled and ithyphallic, possibly a punning allusion to his name (*φαλλός, φάλανθος*).

None of the specimens of No. 30 to 32 that I have come across is in really fine condition with both sides well centred and complete. Sir Arthur Evans' coin of No. 31 [cf. Pl. VII, 31*b*] is the finest and shows clearly the large prawn (*palaemon xiphias*) beneath the dolphin. The reverses of Nos. 20 and 30 are no doubt the work of the same engraver.

Type No. 31. This remarkable type shows a bold attempt to render perspective for such an early date. On No. 29 the die-cutter had drawn the two back legs of the diphros in perspective [cf. Pl. VIII], but this rather pretentious new type is somewhat unbalanced, and it is evident that the engraver failed to place the diphros perpendicular to the exergue, thus destroying the equipoise of the seated oekist [cf. Pl. VII]. The footstool (Θρῆνυς) is uncomfortably high. This stool, ornamented with lion's feet, has been taken by Sir Arthur for an Ionic capital and explained as a visible emblem of heroization. There are, however, other redeeming points in this elaborate version of the seated Taras.

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	<p>The skilful rendering of the folds of his himation is unrivalled for such an early issue. As noted above this reverse is also used with the much earlier obverse die on No. 21 [cf. Pl. VI,] which, owing to the condition of that old die, I proposed to consider as a mule.</p> <p>Type No. 32. The wretched condition of the only two known specimens of this hitherto unpublished reverse prevent any accurate examination of the oekist who is represented seated on a chair in place of the usual diphros as on the wreathed reverse of No. 10. This new type is important as providing us with a valuable link to subsequent issues of similar design ascribed to the following period [cf. Nos. 45-46, Per. IV].</p> <p>Type No. 33. This splendid type is one of the masterpieces of the Tarantine mint. The heroic character is deliberately emphasized by the appearance of a sepulchral altar or tomb before which the heroized oekist is engaged in a solemn sacrifice as though occupied with the sacred rites without which no Greek city was founded.¹³³</p>
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Sir Arthur Evans has rejected R. Rochette's proposal bringing this altar into relation with the tomb or ΗΡΩΟΝ of the Amyklæan Apollo. The site of this tomb has been identified, with great probability by Sir Arthur Evans and Signor Viola,¹³⁴ as an eminence bordering the ancient walls of Tarentum not far from the Têmenid gate. This gate is mentioned by Polybios, and is known today in modern Taranto, as the *Erta di Cicalone*.¹³⁵ It is from this sepulchral mound of Hyakinthos that Hannibal made the treacherous fire-signal to the conspirators led by Philemenos and Nikon (B. C. 212).¹³⁶ Possibly, however, this remarkable type may refer to the death of Taras as related by local tradition.¹³⁷

The oekist has again been transferred to the obverse die, no doubt in order to protect the high relief. However, a small break in the die, near the end of the distaff [see Pl. VIII, 33a] must have occurred almost as soon as the die was put into service. It rapidly increased in size impairing the beauty of many examples that have reached

us. It is owing to this break that the distaff has at times been described¹³⁸ and engraved as an oar, [cf. Magnan, l. c., T. I. Tab. 39, No. XVIII, Pl. VIII, 33*b*] or as the raised back of the diphros [cf. Pl. VIII, 33*i*]. I cannot agree with the opinion expressed by the late Dr. H. Dressel that the type of the reverse is of somewhat earlier style.¹³⁹ The drawing of the figure, in true perspective, is most life-like, and his hair streaming in the breeze is one of the first hints of the *argutiae minutiarum* which later attains to such perfection on the Tarantine dies. However, the dotted border surrounding the obverse type is an early feature, associated with many of the contemporary horsemen. It gives place on the subsequent oekist issues to a plain linear border.

Type No. 34. This type, one of the very finest representations of the heroized oekist, shows a remarkable advance in style. The poise of the seated figure, and the delicately elaborated composition of the drapery, suggest again the influence of Attic marble reliefs and resemble in a re-

markable way the Parthenon frieze. This almost purely Pheidian style apparently would indicate a somewhat later date of issue than the one proposed for the end of Period III.

A close and repeated examination of the obverse die, has led me to the conviction that this type is struck from the very same die as the one used for Nos. 26 and 27 [see Pl. VIII] after a careful recutting. The engraver has greatly improved the figure and arms of Phalanthos and recut his waist, unduly narrow on Nos. 26, 27. The practice of recutting old dies at Tarentum is undeniable from the very start of its coinage. I have in my collection three incuse nomoi all struck from the same obverse die (easily identified from several small breaks) each specimen showing successive stages of the recutting. The large square mark on the reverse [see Fig. No. 5] in the field to right of the head of Satyra has been cut into the old die after a first issue of this remarkable type before the addition of the mark of value,¹⁴⁰ indicating that this nomos was the unit or stater.

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	<p>The rather early date proposed here for No. 34 is apparently further corroborated by the evidence of the 1914 find which included an example of this type in fine condition. The analysis of the coins of this small hoard shows, as will be seen in Appendix C, that its deposition could hardly have been later than c. 440 B. C.</p> <p>Type No. 35. This unique example, with the obverse type turned to left, is plated over a bronze core and probably was intended to imitate the preceding No. 34. Unfortunately, the coin being of small flan, a great part of the seated oekist, which is of unusually good style for an ancient forgery, is lost and cannot be examined with any detail.</p> <p>Carelli gives, Plate CVI, 55, the engraving of an extraordinary type which can be described as follows:</p> <p>“ΤΑΡΑΣ (↖ to r.). Phalanthos naked, seated on dolphin to l., holding in r. hand a trident and in l. a cuttle-fish. In field above dolphin's head a cockle-shell (hinge upwards).</p> <p>“ΡΥ ΖΑΓΑΤ (↖ to r.). Taras naked to</p>
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waist, extending distaff with r. and holding in l. from arm-pit a long staff. His r. foot resting on prow of vessel."

L. Sambon, probably following Carelli; describes an oekist p. 239, in his well-known *Recherches sur les Monnaies de la presqu'île Italique*, under No. 30, as follows: "*il pose le pied droit sur une proue de navire.*"

Finding it impossible to trace any example answering to the above descriptions I consulted my late friend Dr. Imhoof-Blumer, whose experience has always been placed most willingly at the disposal of numismatists, but he informed me that he had never met a Tarentine oekist anything like Carelli's engraving.

It is by mere chance that I found quite recently the source from which Carelli had copied this incongruous type, while examining the very obsolete plates of Goltzius' *Sicilia et Magna Græcia, sive historiæ urbium et populorum Græciæ* published at Bruges in 1576. This type is engraved p. XXXV, Pl. XXXIII, \mathcal{R} 1. j. Among the 17 Tarentine types figured Pl. XXXI to XXXIII, only three represent genuine

types, the balance being fanciful and spurious representations of coins which do not exist.

The Greau sale catalogue (1867) mentions under lot No. 287 the following coin "*Sans legende? Taras assis à gauche sur un dauphin tenant (probablement) un trident de la main droite et un polype de la gauche, posant un pied sur une proue de vaisseau et laissant tomber le bras gauche.*" This coin must be an ill-preserved example of a very late oekist of Type 59, and the supposed prow of a vessel undoubtedly represented the usual stool found beneath the right foot of the seated oekist, which the compiler of the Greau sale catalogue, owing to Carelli's engraving, failed to identify. I believe that the version of the seated Taras as patron of the Tarentine fleet, may safely be discarded as one of the countless inventions of the wholly unreliable Goltzius.

PERIOD IV

Circa B. C. 443-400

The approximate date of 443 B. C. proposed as a limit for the oekists of our Third Period, is the date of the foundation of Thurium. Erected on a site not far removed from the ruins of Sybaris, Thurium was established by the Athenians in the hope that the new city would take the place and importance of the former Achæan colony. Fearing that the newly founded city might ally itself with the Achæans of Metapontum and the bordering Lucanians who, during the middle of the fifth century, had greatly extended southward their incursions to the prejudice of the peaceful Enotrians, the Tarentines decided to seize the territory between Thurium and Metapontum, formerly belonging to Siris, a city which had been destroyed by the Achæans of Metapontum, Sybaris and Croton [B. C. 560]; and to establish there a fortress to hold all their foes, whether Greek or Lucanian, at check. War for the possession of Siris was waged on land and sea; the

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	<p>Thurian armies were led by a Spartan exile named Cleandridas. Hostilities lasted about fourteen years, but finally the victorious Tarentines obtained a favourable treaty of peace, giving them possession of the coveted territory but allowing to the Thurians many privileges. One result was the foundation of Heraclea [B. C. 432], a joint colony of Tarentum and Thurium, a few miles further inland than the old Siris. The Tarentines thus reduced Metapontum almost to vassalage.</p> <p>The progress in style displayed by the last oekist-issues, grouped under Period IV, is most remarkable and the engraver's art reaches a level almost unrivalled in the subsequent Tarentine series.</p> <p>Side by side with the evident influence of Attic models of purely Pheidian style, we now find on many new versions of the seated Taras a pictorial element suggestive of the painters' rather than the sculptors' art. It is impossible not to accept Lenormant's view recently accepted by Sir Arthur Evans,¹⁴¹ that the pictorial style on all the more or less contemporary coin</p>
	NUMISMATIC NOTES

types of Magna Græcia, was due to the influence of the great painter Zeuxis who during the last quarter of the fifth century B. C. had made Croton the centre of his activity.

Unfortunately most of the finest types of the Tarentine oekists have been copied by native engravers of very slight skill, and we find many examples of carelessness and want of finish. This is also to be observed, even during the best period, at Terina, Metapontum and in other Magna Græcian mints. That the oekists of Tarentine Greek style and those of poor workmanship are to be grouped together as strictly contemporary, is fully corroborated by the evidence of the small but highly important 1914 find from the immediate neighborhood of Taranto. I was fortunate enough to be able to examine this find in its integrity before its dispersion, and can give its analysis (Appendix C). All the coins were more or less coated with a tenacious greyish oxide. The removal of this coating left the surface of many of the coins somewhat eroded. It is noteworthy that

no early horsemen were included in this small find, but negative evidence proves nothing and it is now conceded that many early equestrian nomoi were issued before oekists of advanced style as Nos. 34, 37A and 42, and all three of these were represented in this find by very fine or brilliant specimens.

Sir Arthur Evans has expressed the opinion that between the early horsemen of his First Period (c. 450-430 B. C.) and those he has described under his Second Period (c. 420-380 B. C.), the Tarentine moneyers had stopped the striking of the equestrian types and had reverted to the precedent oekist-issues; and Dr. K. Regling shares the same opinion even extending from 450 to 430 B. C., the interval between the first two horsemen Periods.

There is no doubt that after c. 430 B. C., the oekist-nomoi must have formed the principal staple of the Tarentine currency, but since 1889 when Sir Arthur Evans published his monograph, many new equestrian types of late transitional to early fine style have come to light which lessen the lapse

noticed by Sir Arthur Evans in the artistic development between horsemen of his Periods I and II. Apparently this disturbing gap is now satisfactorily filled. Most of these new horsemen are unpublished. They show so many affinities in design and such great similarity in the style of their die-cutting with many oekists of the Fourth Period, that it is difficult to date them as late as 420 B.C. I am therefore very much inclined to believe that both oekists and horsemen continued to be struck, side by side, from 430 until c. 400 B. C., when the equestrian types permanently displaced the seated oekist. This conclusion receives corroboration from the evidence supplied by the very important hoard of 1908, from the Ionian Calabrian shore (?) of which I can give but a summary, from notes taken during 1910 (Appendix A), when I had the opportunity of hurriedly looking through this find which had passed into the hands of a prominent dealer. The five oekists included therein were in exactly the same condition of preservation as the bulk of the horsemen belonging to the first two Periods

represented in this remarkable hoard, and their contemporaneity was obvious.

The weight standard of the oekists during their last issues is now somewhat lower and the average weight proposed by Dr. K. Regling of 7.73 gr. is correct, though some exceptional pieces noted weigh 8.14 and even 8.20 gr. We also find certain issues [see No. 37] represented by examples in brilliant mint state, weighing as little as 7.63 gr.

Circa B. C. 443-400

Type No. 36

[Inscription obliterated]. Phalanthos naked, seated on dolphin, r., l. arm extended; beneath, cockle-shell (hinge upwards) — poor style.

℞ Taras, naked to waist, seated l. on chair, holding bird by the end of its wings; l. fore-arm resting on back of chair, his r. foot drawn back beneath chair (poor style).

a. M. P. Vlasto. AR plated, 19.5/21 mm. 6.10 PL. VIII. gr. [very poor] the bronze core visible on edge.

Type No. 37

[No inscription]. Phalanthos, the hair long, and blown backwards, naked and ithyphallic, seated on dolphin to r., extending in r. hand a strigil, l. arm resting on dolphin's back. Beneath prawn (*palæmon vulgaris*). Plain linear border. Very fine style.

R^v Same type, but of beautiful style. The legs of chair drawn in perspective. The very scant himation leaves both legs of Taras bare from the knees. It is ornamented with a tassel on the end hanging over chair. Outline of reverse die visible.

a. M. P. Vlasto. AR 21 mm. 7.63 gr. (f. d. c.)

PL. VIII. Cf. M. Vlasto, *Num. Chron.*, 1907, Pl. X, 5, (ex. E. J. Seltman Coll.).

b. M. P. Vlasto. AR 19/21 mm. 7.60 gr. (not fine), with the graffito ΦΙΑ, on obverse.

c. Sir Arthur Evans. AR 20/21 mm. 7.66 gr. (f.

PL. IX. d. c.). Paris, 21 Dec., 1907, Sale, Pl. I, 18 [from the Nervegna Coll.].

d. London. AR 19/21 mm. 7.73 gr. Brit. Mus. Cat., p. 171, No. 82.

e. Paris. AR 20/21 mm. 7.70 gr. (f. d. c.). R. Rochette, Type XIV, p. 209, Pl. IV, 36.

f. Paris. AR 22/23 mm. 7.82 gr. de Luynes

- Coll., No. 282 (ex. R. Rochette Coll.),
R. Rochette, Pl. IV, 35.
- g. Berlin. $\bar{A}R$ 19 mm. 7.55 gr. (not fine), ex.
Imhoof-Blumer Coll.
- h. Naples. $\bar{A}R$ 20/21 mm. (f. d. c.). Mus. Naz.,
Fiorelli, No. 1805.
- i. Cambridge. $\bar{A}R$ 19/21 mm. 7.74 gr. (not fine).
Fitzwilliam Mus., ex. McClean Coll.
- j. Sir Charles Oman. $\bar{A}R$ 19/21.5 mm. 7 gr.
(not fine).
- k. R. Jameson. $\bar{A}R$ 20/21 mm. 7.48 gr. (ex. A.
J. Evans Coll.). Jameson, Cat. Pl. V,
101.
- l. Cl. Côte. $\bar{A}R$ 20/22.5 mm. 7.82 gr. (f. d. c.),
ex. L. Naville and S. Pozzi Colls., cf.
Dieudonné, Cat. Pozzi, Pl. XII, 309.
(ex. Strozzi 1907 Sale, Pl. III, No. 842).
- m. (?) $\bar{A}R$ 21/22.5 mm. 7.45 gr. Ex. Arch-
æologist and Traveller's, Sotheby Sale
(A. J. Evans), 20 Jan., 1898, Pl. I, 6.

[Cf. Dumarsan, coll. Allier d'Hauteroche
(1829) Pl. I. 10—D. C. Cavedoni (Modena
1838), *Spicelegio Numismatica*, p. 17, etc.,
etc.]

Type No. 37A

ΩΩWI | T | WA9AT (Ω above). Same
type of crude, bold style. In field three
small pellets [one to l., one to r. of Phalan-

thos, and the third between dolphin and shrimp.]

R⁷ Same type as No. 37, of very bold style.

a. M. P. Vlasto. $\bar{A}R$ 19/21 mm. 8.14 gr., from PL. IX. the 1914 find.

b. Cl. Côte. $\bar{A}R$ 20/21 mm. 7.76 gr. (ex. M. P. Vlasto and H. P. Smith, 1900, Colls.). L. Correra, *Neapolis*, l. c., Tav. VI, 24. Cf. L. Sambon, l. c., Pl. XVII, No. 9 (very inaccurate), p. 240, No. 32.

Type No. 37B

No inscription. Same type of barbarous style. A small pellet above shrimp; no border visible.

R⁷ Same type of barbarous style.

a. Berlin. $\bar{A}R$ 19/20 mm. 6.91 gr. (very fine), PL. IX. ex. Löbbecke Coll.

Type No. 37C

Same type, of better style. Linear border.

R⁷ Same type; Taras holds in r. hand a small fish in a net (blundered representation of the usual bird). Poor style. Outline of reverse die visible.

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	<p><i>a.</i> M. P. Vlasto. $\text{AR } 21/23$ mm. 7.776 gr. Ex. PL. IX. Sir Herman Weber Coll. (1918) and G. Sim (1890) Sale, lot No. 44. L. Forrer, Weber Cat., Pl. 24, No. 535. Cf. R. Rochette, p. 212.</p> <p style="text-align: center;">Type No. 38</p> <p>ΩΩΩΙ Τ ΜΑΡΑΤ (Q above). Same type, of very fine style. Without pellets. Linear border.</p> <p>R$\bar{\nu}$ Taras, hair curly, naked to waist, seated to l. on chair, holding out in extended r. hand by both wings a bird at which a panther's cub jumps. His l. fore-arm resting on distaff held in l. hand and placed flat on back of chair. The himation is wider than on No. 37, and hides part of his legs. His r. foot drawn backwards, beneath chair, is resting on stool with lion's feet. Outline of reverse die visible. (Beautiful style).</p> <p><i>a.</i> Berlin. $\text{AR } 21$ mm. 7.83 gr. Ex. Löbbbecke PL. IX. Coll. (ex. Güterbock Coll.).</p> <p><i>b.</i> M. P. Vlasto. $\text{AR } 20/21$ mm. 8.10 gr. Ex. A PL. IX. Delbecke Sale, Pl. I, 14.</p> <p><i>c.</i> M. P. Vlasto. $\text{AR } 20/21$ mm. 7.70 gr. Ex. H. P. Smith Coll. (New York, 1899).</p> <p><i>d.</i> W. Gedney Beatty. $\text{AR } 21/23$ mm. 7.565 gr. PL. IX. (somewhat pitted by oxidation).</p>
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- e. Cambridge. \overline{AR} 21 mm. 7.67 gr. Fitzwilliam PL. IX. Museum, — Leake Coll. (cf. Leake, *Num. Hell.*, 1854, p. 147).
- f. London. \overline{AR} 21 mm. 7.80 gr. (Brit. Mus. Cat., No. 81, vignette very inaccurate). Evans, l. c., Pl. I, 12.
- g. Naples. \overline{AR} 21 mm. Mus. Naz., Santangelo Coll., Fiorelli, No. 2360.
- h. Naples. \overline{AR} 20 mm. (Very poor). Santangelo Coll., No. 2361.
- i. R. Jameson. \overline{AR} 21 mm. 7.91 gr. (ex. A. J. Evans Coll.), cf. Jameson Cat. Pl. V, No. 102.

Type No. 38A

Same type, of barbarous style.

$\overline{R\gamma}$ Same type, of crude style.

- a. London. \overline{AR} 20/21.5 mm. 7.989 gr. British PL. IX. Museum, ex. James Whittall (1884). London Sale, lot No. 88.

Type No. 39

From same die as No. 38.

$\overline{R\gamma}$ Taras naked, with scanty drapery over r. thigh, seated to l. on chair, his r. foot brought round ankle of l. leg. He extends r. hand towards large panther rearing in front of him. His l. hand resting

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	<p>on back of chair, holds lemniskos (?). Beautiful style.</p> <p><i>a.</i> M. P. Vlasto. \AA 22.5 mm. 7.15 gr. (very PL. IX. much worn). L. Correra, <i>Neapolis</i>, l. c., 1913, Tav. VI, 27.</p> <p style="text-align: center;">Type No. 40</p> <p>From same die as No. 38.</p> <p>\AA Same type as No. 38, but Taras holds bird by one wing in extended r. hand, and distaff in l.; his l. fore-arm rests on back of chair. In field behind chair, a panther's cub walking to l. The legs of Taras are placed as on No. 39. Outline of reverse die visible.</p> <p><i>a.</i> Sir Arthur Evans. \AA 21.5/22.5 mm. 8.20 PL. IX. gr.</p> <p><i>b.</i> Berlin. \AA 20/21 mm. 7.25 gr. (poor). Dres- PL. IX. sel, l. c., p. 230, No. 83 (ex. Peytrignet Coll.).</p> <p><i>c.</i> London. \AA 21/22 mm. 7.83 gr. Brit. Mus., PL. X. ex. J. Whittall, 1884 Sale, lot No. 88.</p> <p><i>d.</i> Bari. \AA 20 mm. Very poor.</p> <p><i>e.</i> M. P. Vlasto. \AA 20/21 mm. 7.78 gr. Ex. Imhoof-Blumer Coll, (Greau, 1867, Sale, No. 286).</p> <p>[Cf. R. Rochette, p. 210 (<i>avec un quad-</i></p>
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rupède au repos derrière le siège) and L. Sambon, l. c., p. 240, No. 33].

Type No. 41

From same die as No. 38.

R Taras, the hair curly, naked to waist, seated to l. on chair as on No. 37 extending r. hand on back of which lies a spindle of wool horizontally. A panther's cub, reared on its hind legs, and turned to l., looks upwards towards extended hand of Taras. Linear exergue. Very fine style.

a. M. P. Vlasto. $\text{AR } 21/22$ mm. 7.30 gr. (f. d.

PL. X. c. but has lost weight after cleaning).

b. Cl. Côte. $\text{AR } 20/22$ mm. 7.77 gr.

PL. X.

c. Cl. Côte. $\text{AR } 21/22$ mm. 7.81 gr.

d. Vienna. $\text{AR } 20/21$ mm. 7.67 gr. Ex. Carelli Coll., cf. Avellino, p. 78, No. 327; ex. Museo Capyciolatro.

e. Sir Charles Oman. $\text{AR } 20.5/21$ mm. 7.128 gr.

f. (?) $\text{AR } 21/22$ mm. 7.77 gr. Merzbacher, Munich Sale, Nov., 1910; ex. Paris, A. Sambon, 1902, Sale, No. 284; ex. M. P. Vlasto Coll. (cf. *Rev. Int. d'Arch. Num.*, 1899, p. 143, Pl. I, 2) where the coin is very inaccurately described.

156	ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ
	<p style="text-align: center;">Type No. 42</p> <p>From same die as No. 37A.</p> <p>℞ Same type of crude style. Outline of reverse die visible.</p> <p><i>a.</i> M. P. Vlasto. ⲁⲔ 21/22 mm. 8.08 gr., from PL. X. the 1914 find.</p> <p><i>b.</i> M. P. Vlasto. ⲁⲔ 23/22 mm. 7.92 gr. (From the Pacelli-Telese Coll.).</p> <p style="text-align: center;">Type No. 43</p> <p>From same die as No. 38.</p> <p>℞ Same type, without the panther's cub. Taras holds in extended r. hand distaff, point downwards, and his r. foot, drawn back beneath chair rests on stool. Outline of reverse die visible. Very fine style.</p> <p><i>a.</i> M. P. Vlasto. ⲁⲔ 21 mm. 7.94 gr. Found PL. X. at Taranto, 1907.</p> <p><i>b.</i> M. P. Vlasto. ⲁⲔ 21 mm. 7.98 gr.</p> <p><i>c.</i> London. ⲁⲔ 22 mm. 7.658 gr. Brit. Mus., Italy, p. 171, No. 83.</p> <p><i>d.</i> Berlin. ⲁⲔ 20 mm. 7.96 gr. Ex. Löbbecke Coll. (ex. Schmidt Coll.).</p> <p><i>e.</i> Naples. ⲁⲔ 21 mm. Mus. Naz., Santangelo Coll., Fiorelli, No. 2362.</p> <p><i>f.</i> Naples. ⲁⲔ 21 mm. Mus. Naz., Fiorelli, No. 1806.</p>
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Type No. 43A

Same, from another die.

℞ From same die as No. 43.

a. Vienna. Ⓐ 21/22 mm. 7.52 gr. Carelli, D.
PL. X. 62, N. I. V. T., CVII, 73.

Type No. 44

[WΩ]W|T|WAϑAT (⊙ above). Phalanthos, naked, seated on dolphin to l., extending strigil in r. and resting l. on dolphin's back; beneath, cockle-shell (hinge upwards). Of barbarous style.

℞ Same type as No. 43, but distaff held point upright. Outline of reverse die visible. Of barbarous style.

a. M. P. Vlasto. Ⓐ 21/22 mm. 8.03 gr. From
PL. IX. the Paris, 19 Dec., 1907, Sale, Pl. I,
lot No. 13 (ex. A. Sambon Coll.).

Type No. 45

WΩWIT|W|A|ϑA|T (⊙ around). Phalanthos, naked, seated on dolphin to l., extending his r. hand with open palm, and resting l. on dolphin's back. Beneath, very large cockle-shell. Of fine style.

℞ Taras, naked to waist, seated on

diphros to l., leaning forward holding kantharos in extended r. hand, and in l. distaff upright against his l. arm. His r. foot resting on stool with lion's feet and l. leg brought backwards in front of diphros drawn in perspective. Concave field. Very fine style.

- a. Boston. \mathcal{A} 23 mm. 7.91 gr. Mus. of Fine PL. X. Arts, No. 04308, ex. Warren Coll. Regling, l. c., p. 5, No. 27 (ex. Greenwell and Montagu Coll., 1894, No. 22).
b. Berlin. \mathcal{A} $21/22$ mm. 7.75 gr. Ex. Imhoof-PL. X. Blumer Coll.

Type No. 46

Τ | ΑΡΑ | Ν | ΤΙΩΩ | Ν (○ around). Phalanthos naked, seated on dolphin to l., wearing crested Attic helmet, holding akrostolion extended in r. hand; in l. small round shield and two lances. On the lower part of dolphin's body to r. the engraver's very minute initial signature, E. Beneath, a large fish (*serranus gigas*) to l. Very fine style.

℞ From same die as No. 45.

- a. M. P. Vlasto. \mathcal{A} 22 mm. 7.55 gr. Ex. R. PL. X. Jameson's Coll., Cat. R. Jameson, Pl.

V, 105 (ex. A. J. Evans and Bunbury, No. 86, Colls.), cf. L. Correra, *Neapolis*, l. c., Tav. VI, 28.

b. London. AR 20/21 mm. 7.918 gr. [f. d. c. but misstruck], from the J. Whittall Sale, 1884, lot 88.

c. Vienna. AR 20 mm. 7.67 gr. Carelli D. 64.

d. Glasgow. AR 20/22 mm. 7.39 gr. (not fine). Hunter Coll., Macdonald, No. 13 (cf. R. Rochette, p. 209), Combe, Pl. 55, No. XI. Avellino, p. 77, No. 315. Carelli, N. I. V. T., CVI, 54. F. de Dominicis, T. II, p. 406, No. 1.

e. Athens. AR 20/21 mm. 7.47 gr. (poor). Postolaka, l. c., p. 31, No. 226.

Type No. 47

T | APA | N | TIVΩN (Q around). Same type, but Phalanthos holds in l. hand larger shield and no lances. Signature E on dolphin. Of very fine style.

R Taras naked, seated to l. on diphros. One end of his himation covers his r. thigh. He is extending in r. hand a distaff, point downwards, towards which a young panther is jumping. He holds in l. hand a strigil and lekythos suspended by a string. Of very fine early style.

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	<p><i>a.</i> M. P. Vlasto. \overline{AR} 21/22 mm. 7.50 gr. (some- PL. X. what worn).</p> <p style="text-align: center;">Type No. 47A</p> <p>T A9A W TINΩ (C) around above) Same type, of imitative, poor style.</p> <p>℞ Same type, of poor style, the figure larger.</p> <p><i>a.</i> (?) \overline{AR} plated (?), 23 mm. 7.40 gr. Hirsch PL. X. XXX Sale, No. 104, Pl. III, ex. Gar- rucci Coll., Garrucci T. XCVII, 32.</p> <p style="text-align: center;">Type No. 47B</p> <p>Same type, from another die, the shield smaller. Signature E on dolphin.</p> <p>℞ Same type, of very beautiful style. Outline of reverse die visible.</p> <p><i>a.</i> Berlin. \overline{AR} 21/23 mm. 7.89 gr. Ex. Imhoof- PL. XI. Blumer Coll.</p> <p><i>b.</i> London. \overline{AR} 19.5 mm. 7.96 gr. Brit. Mus. PL. XI. Cat., p. 171, No. 84 (ex. Northwick Sale, No. 121). P. Gardner, "Types of Greek Coins," Pl. V, 3-4. Head, <i>Hist. Num.</i>² p. 55, fig. 25.</p> <p><i>c.</i> Paris. \overline{AR} 24/22 mm. 7.20 gr. (not fine, but unusually well spread). R. Rochette, Type XV, p. 210, Pl. IV, 38.</p> <p><i>d.</i> Paris. \overline{AR} 22 mm. 7.95 gr. R. Rochette, Pl. IV, 37. Mionnet, No. 454, p. 147. F</p>
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de Dominicis, T. II, p. 209, No. 3.
Avellino, p. 78, No. 326.

Naples. \mathcal{R} 21 mm. (Poor). Mus. Naz.,
Santangelo Coll. Fiorelli, No. 2366.
The rev. double struck.

R. Jameson. \mathcal{R} 20 mm. 8.05 gr., very fine.
(Ex. A. J. Evans and Bunbury, No. 86,
Colls.). Cat. R. Jameson, Pl. V, No.
104.

g. M. P. Vlasto. \mathcal{R} 20/21 mm. 7.24 gr. (some-
what worn). L. Walcher v. Moltheim
Sale, lot No. 115.

Type No. 48

From same die as No. 47B.

\mathcal{R} Same type, but Taras naked to
waist. Both feet closely wrapped in hima-
tion, drawn backwards beneath diphros.
Of most beautiful style.

a. Berlin. \mathcal{R} 22/23.5 mm. 7.44 gr. Dressel,
PL. XI. 1. c., p. 239, No. 82, Taf. XI, 174, with
 Δ A graffito on rev.

b. Paris. \mathcal{R} 22/21 mm. 7.90 gr. de Luynes
PL. XI. Coll. (ex. R. Rochette and Carelli
Colls.), R. Rochette, Pl. IV, 39. Ca-
relli, N. I. V. T., CVI, 52, D. 63. L.
Sambon, 1. c., Pl. XVII, 11, p. 240, No.
33.

c. M. P. Vlasto. \mathcal{R} 20 mm. 7.65 gr. Hirsch
XVI Sale, 6 Dec., 1906, No. 27.

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	<p>[The obv. die shows a small flaw above letter T. The reverse die on <i>a</i> and <i>c</i> shows a linear flaw above the left shoulder of Taras and a second flaw, shaped like a cross, behind panther is visible on <i>a</i> and <i>b</i>.]</p> <p style="text-align: center;">Type No. 49</p> <p>No inscription. Phalanthos naked, ithyphallic, the hair long, seated on dolphin to l., r. arm extended, the hand seen in profile, carrying on l. buckler of Mycenaean shape and lance, the point turned towards his head; beneath, cockle-shell (hinge upwards).</p> <p>R⁷ Taras naked, the hair curly, seated to r. on diphros drawn in perspective, over which lies his himation. He holds in r. a distaff downwards; l. arm extended. A small bird is perched on the back of his hand with its wings half spread. Both feet of Taras are resting on a rectangular stone drawn in perspective. Outline of reverse die visible.</p> <p><i>a.</i> Boston. \mathcal{R} 26 mm. 8.20 gr. (f. d. c.). Mus. PL. XI. Fine Arts, No. 04305, ex. Warren Coll. Regling, l. c., p. 5, No. 23, Pl. I, 23.</p>
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ex. Greenwell Coll., Sotheby, 6, VII, 1897 Sale, No. 155). Mus. Fine Arts Bulletin, Vol. V, No. 30, Dec., 1907, cut No. 4 (reverse).

b. London. Æ 22/22.5 mm. 7.95 gr. Brit. Mus. Cat., p. 170, No. 78.

c. Paris. Æ 21/23 mm. 7.85 gr. (f. d. c.). de Luynes Coll., No. 283.

d. Cambridge. Æ 20/26 mm. 7.39 gr. (v. poor). Fitzwilliam Mus., McClean Coll. (ex. M. Vlasto Coll.).

e. Sir Arthur Evans. Æ 21 mm. 7.95 gr. (f. d. c.).

f. M. P. Vlasto. Æ 23 mm. 7.73 gr. (on obv. graffito T).

g. M. P. Vlasto. Æ 22/23 mm. 7.70 gr. Ex. Maddalena Sale, 1903, lot No. 251.

h. ? Æ 21 mm. 7.35 gr. (worn). Hirsch XXXIV Sale, No. 22, Pl. I, from the 1908 find.

[On obv. die a small flaw to r. of buckler and another above hinge of cockle-shell.]

Type No. 50

From same die as No. 49.

R γ Taras, hair short and wavy, naked to waist. He is seated on diphros (in perspective), with l. leg crossed over the r. He holds long staff in r. hand, his l. is placed on corner of seat. His r. foot rests on a

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	<p>flat stool. In field to r. a distaff rests obliquely on plain linear exergue. Outline of reverse die visible. Of charming style.</p> <p><i>a.</i> M. P. Vlasto. \AA 21 mm. 7.886 gr. Ex. Sir PL. XI. Herman Weber Coll., 1919 (ex. G. Sim Sale, 1890, lot 44). L. Forrer, Weber Cat., No. 536, Pl. 24.</p> <p><i>b.</i> Berlin. \AA 22/19 mm. 7.90 gr. Ex. Löbbecke Coll.</p> <p><i>c.</i> London. \AA 19/21 mm. 7.285 gr. (worn) Brit. Mus. Cat., p. 170, No. 77.</p> <p><i>d.</i> Naples. \AA 20 mm. Mus. Naz., Santangelo Coll., Fiorelli, No. 2365.</p> <p><i>e.</i> Cl. Côte. \AA 20/21 mm. 7.54 gr. (worn).</p> <p><i>f.</i> Marquis R. Ginori. \AA 22/23 mm. 7.58 gr (worn).</p> <p><i>g.</i> M. P. Vlasto. \AA 22/23 mm. 7.80 gr. (C: PL. XI. Hoffman <i>le Numismate</i>, p. 97, No. 240)</p> <p><i>h.</i> ? \AA 23 mm. 7.10 gr. (poor). Nervegna Sale, No. 278, Pl. III.</p> <p>[The reverse die on <i>e, f, g, h</i>, is fractured beneath l. shoulder of Taras, the large flaw reaching the edge to r.]</p> <p style="text-align: center;">Type No. 51</p> <p>From same die as No. 49.</p> <p>R^v Taras naked, the hair short and wavy, seated to l. on chair. The chair is covered by his himation, one end of which</p>
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is draped over his r. thigh. His r. foot drawn behind the front leg of chair. Taras extends r. hand holding lemniskos, tied to the feet of a small bird perched on back of hand. His l. hand hanging down behind back of chair holds a distaff pointing downwards to l. Outline of reverse die visible.

a. Berlin. \AA 21/22 mm. 7.88 gr. Ex. Imhoof-PL. XI. Blumer Coll. (Duprè Sale, No. 32). cf. Hoffman *le Numismate*, p. 97. No.

237.

b. Cambridge. \AA 20/21 mm. 7.01 gr. Fitzwilliam Mus. (Leake Coll.), cf. Leake, *Num. Hell.*, p. 148. Garrucci T. XCVII, 33.

c. Vte. de Sartiges. \AA 20/23 mm. (Very fine). From the 1908 find. *Cat. de la coll. du Vte. de Sartiges*, Paris, 1910, Pl. I, 14

d. M. P. Vlasto. \AA 19/21 mm. 7.75 gr.

e. M. P. Vlasto. \AA 19/21 mm. 7.73 gr.

[The obverse die is now very much worn and damaged beneath dolphin and to r. of buckler.]

Type No. 52

Same, from another die, without lance behind buckler.

℞ Taras, naked to waist, seated to l. on diphros, both legs bare and placed side by

side, the r. one fronting l. He holds distaff upright in extended r. hand, and rests l. on corner of diphros. Outline of reverse die visible. (cf. No. 23, Per. III).

a. M. P. Vlasto. *AR* 22/23 mm. 7.94 gr. Greau, **PL. XI**. Paris 1867 Sale, No. 288. A small triangular punch mark beneath exergue on reverse.

Type No. 52A

Same type, of barbarous style.

R Same type, of barbarous style (no distaff [?] in r. extended hand of Taras).

a. M. P. Vlasto. *AR* 20.5 mm. 5.98 gr. **PL. XI**.

b. Berlin. *AR* 20/21 mm. 5.95 gr. Dressel, l.c., p. 241, No. 88 (ex. Fox Coll.).

Type No. 53

From same die as No. 52.

R Taras, hair curly, naked to waist, seated to l. on diphros drawn in perspective; balancing on back of his extended r. hand a spindle of wool, and holding in l. a strigil and lekythos, suspended by a string from the wrist. His l. leg drawn backwards in front of diphros. Linear exergue. Outline of reverse die visible. Very fine style.

a. Berlin. \mathcal{R} 23.5/24 mm. 7.78 gr. Dressel, **PL. XI.** 1. c., p. 238, No. 77, Taf. XI, 173 (ex. Peytrignet Coll.).

b. M. P. Vlasto. \mathcal{R} 23/22 mm. 8.05 gr. Hirsch **PL. XI.** XXIX Sale, 19, from the 1908 find.

c. London. \mathcal{R} 25/22 mm. 7.925 gr. Brit. Mus. Cat., No. 79, p. 170.

d. Naples. \mathcal{R} 22 mm. Mus. Naz., Santangelo Coll., Fiorelli, No. 2364.

e. Cl. Côte. \mathcal{R} 23 mm. 7.62 gr. (not fine). Ex. M. Vlasto Coll.

f. Vienna. \mathcal{R} 22/23 mm. 7.67 gr. (not fine). Ex. Carelli Coll., Carelli D. 76, N. I. V. T., CVI, 63.

[The obverse die has a small flaw above extended r. arm of Phalanthos and 2 breaks to r. near buckler.]

Type No. 53A

• From same die as No. 52.

\mathcal{R} Same type, but Taras does not hold strigil in l. hand. Outline of reverse die visible.

a. Berlin. \mathcal{R} 22 mm. 7.78 gr. (somewhat worn). **PL. XII.** Dressel, 1. c., p. 238, No. 78.

Type No. 53B

From same die as No. 52.

\mathcal{R} Same type as No. 53A, but of

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	<p>weak style and l. hand of Taras rests on corner of diphros, with lekythos strung to wrist. Outline of reverse die visible.</p> <p><i>a.</i> Berlin. \AA 21/22 mm. 8.08 gr. Ex. Löb- PL. XII. becke Coll. (ex. Güterbock Coll.).</p> <p><i>b.</i> Naples. \AA 20/21 mm. (Badly struck). Mus. Naz., Santangelo Coll., Fiorelli, No 2363.</p> <p style="text-align: center;">Type No 53C</p> <p>Same type, from another die. The head of Phalanthos very small, with long hair.</p> <p>\AA Same type of good style, Taras of larger proportions holds also in l. hand a strigil as well as lekythos. Outline of reverse die visible.</p> <p><i>a.</i> E. T. Newell. \AA 20/21.5 mm. 7.89 gr. PL. XII.</p> <p><i>b.</i> Paris. \AA 21/22 mm. 7.80 gr. R. Rochette, Pl. III, No. 30.</p> <p><i>c.</i> Gotha. \AA 22 mm. 7.38 gr. (not fine).</p> <p><i>d.</i> Cl. Côte. \AA 22 mm. 7.80 gr.</p> <p style="text-align: center;">Type No. 53D</p> <p>From same die as No. 53C.</p> <p>\AA Same type, but Taras more slender. He is naked, and his himation lies on diphros, excepting small end brought over</p>
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his r. thigh. Outline of reverse die visible.
Beautiful style.

a. Berlin. AR 20/21 mm. 7.88 gr. (ex. Löbbecke
PL. XII. Coll.).

Type No. 54

From same die as No. 37A [see Pl. IX].

R From same die as No. 53C [see Pl.
XII].

a. ? AR 22 mm. Very poor, seen at Naples
dans le commerce, Oct., 1909.

Type No. 55

From same die as No. 37.

R Same type, Taras with very curly
hair, and of corpulent proportions; naked
to waist. Cf. No. 53. Outline of reverse
die visible. Very fine style.

a. Boston. AR 23 mm. 7.48 gr. Museum Fine
PL. XII. Arts, No. 04304, ex. Warren Coll. Reg-
ling, l. c., No. 22 (ex. Greenwell Coll.).

b. M. P. Vlasto. AR plated, 24/25 mm. 7.60 gr.
PL. XII. Ex. T. Ready, Paris, 8 July, 1919 Sale.

c. M. P. Vlasto. AR 21/22 mm. 7.69 gr. Ex.
Maddalena Sale, lot No. 251.

d. Glasgow. AR 21 mm. 7.59 gr. (not fine)
Hunter Coll., Macdonald, l. c., No. 11.
Combe. Pl. 55, fig. VIII. Avellino.

- l. c., p. 77, No. 316. F. de Dominicis, T. II, p. 209, No. 1, and p. 406, No. 2.
- e. Cl. Côte. $\bar{A}R$ 22 mm. 7.70 gr. (somewhat worn). Ex. Dr. S. Pozzi Coll., Dieu-donné Cat. Pozzi, Pl. XII, 310.
- f. Berlin. $\bar{A}R$ 20/21 mm. 7.65 gr. Ex. F. Imhoof-Blumer Coll.
- g. E. J. Seltman. $\bar{A}R$ 20/21 mm. 7.60 gr.
- h. *Dans le commerce* (1919). $\bar{A}R$ 21 mm. 7.48 gr. (poor).
- i. Cambridge. $\bar{A}R$ 21/22 mm. 7.74 gr. (poor). Fitzwilliam Mus., ex. McClean Coll.
- j. ? $\bar{A}R$ 21 mm. 7.67 gr. London, Sotheby, 1907, Sale, lot No. 5.

Type No. 55A

From same die as No. 37.

$\bar{R}\gamma$ Same type, from another(?) die, the lekythos a little larger. Concave field.

- a. R. Jameson. $\bar{A}R$ 21/22 mm. 7.49 gr. (f. d. c.).
PL. XII. Cat. Jameson, Pl. V, 103, ex. A. J. Evans Coll. [Burlington Fine Arts Club exhib. Cat., Pl. CI, 23 (reverse)].
- b. Paris. $\bar{A}R$ 20/20.5 mm. 7.82 gr. (f. d. c.). de Luynes Coll., No. 274 (ex. R. Rochette Coll.), R. Rochette, Type XI, p. 207, Pl. III, No. 29.

[The obverse die of Types Nos. 55 and 55A is very much worn and shows a fracture above strigil].

Type No. 56

From same die as No. 22 [cf. Pl. VII].

℞ Same type, but Taras of more slender proportions, and no strigil in l. hand. Outline of reverse die visible.

a. M. P. Vlasto. ⲁⲔ 19/21 mm. 8 gr. (with **PL. XII.** graffito + on obv.) (Cat. Rollin et Feuardent, 1862, No. 685).

b. Cambridge. ⲁⲔ 20 mm. 8.07 gr. (f. d. c.). Fitzwilliam Mus., McClean Coll., (ex. Strozzi Sale, lot No. 845, Pl. III).

c. Athens. ⲁⲔ 20 mm. 7.82 gr. (Ex. M. Vlasto Coll.).

d. Sir Charles Oman. ⲁⲔ 19/20 mm. 7.977 gr.

Type No. 56A

From same die as No. 22.

℞ Same type, the diphros not drawn in perspective, and the l. hand of Taras empty. Concave field.

a. Cl. Côte. ⲁⲔ 20/20.5 mm. 7.95 gr. Ex. L. **PL. XII.** Naville and Dr. Pozzi Colls. Dieu-donné Cat. Pozzi. No. 311, Pl. XII.

b. Naples. ⲁⲔ 20 mm. Mus. Naz., Santangelo Coll., Fiorelli, No. 2359.

c. Naples. ⲁⲔ 20 mm. Mus. Naz., Santangelo Coll., Fiorelli, No. 2358 (the obverse very much tooled).

d. Paris. ⲁⲔ 22.5/20 mm. 7.90 gr. R. Rochette, Type XI, p. 208, Pl. IV, 31.

e. M. P. Vlasto. \AA R 19/20 mm. 7.63 gr. (obv. oxidized). On reverse graffito A. From the Torre del Ovo 1912 find. (See Appendix B.)

Type No. 57

Phalanthos naked, seated side-ways on dolphin to l., both legs extended. He holds dolphin's dorsal fin with r. hand, and rests l. on dolphin's back. Beneath, curling crests of waves, above which a fish (*labrax lupus*) swimming downwards to l. Above dolphin's tail, two small letters ΟΠ (?).

\AA r From same die as No. 56.

1. Sir Arthur Evans. \AA R 18/21 mm. 7.993 gr. PL. XII.

b. Berlin. \AA R 19/22.5 mm. 7.87 gr. Dressel, PL. XII. l. c., p. 239, No. 79 (ex. Peytrignet Coll.).

c. M. P. Vlasto. \AA R 22 mm. 8.105 gr., with the PL. XII. letters ΟΠ (?) quite distinct.

d. Cambridge. \AA R 20 mm. 7.41 gr. (poor). Fitzwilliam Mus., McClean Coll., (ex. Hirsch XXI Sale, No. 298, Taf. 1. Consul Ed. F. Weber).

e. Vienna. \AA R 19/20 mm. 7.67 gr. (ex. Carelli Coll.), Carelli D. 75, N. I. V. T., CVII 75.

f. Bari. \AA R 21 mm.

[The die is damaged to r. of l. arm of Phalanthos and to r. of his r. hand; the letters ΟΓ may also be only the result of two small die-flaws].

Type No. 58

From same die as No. 57.

ΡΥ ΤΑΡΑΣ (↗ to l.). Taras, the hair long and flowing behind, naked, seated to l. on a low structure of masonry upon which is placed his himation, the r. foot resting on a lower step. He holds a strigil in r. hand, his elbow placed on the knee of r. leg, his l. hand resting on masonry in which is fastened his distaff. Outline of reverse die visible. Of most beautiful style.

a. Berlin. $\mathcal{A}\mathcal{R}$ 19/20 mm. 8.03 gr. Dressel, l.c., **PL. XIII.** pp. 240, 241, No. 87 (ex. Fox. and R. Rochette Colls.), R. Rochette, Type XVI, p. 212, Pl. IV, 40.

b. M. P. Vlasto. $\mathcal{A}\mathcal{R}$ 20 mm. 7.30 gr. (somewhat worn). Cf. M. Vlasto, *Rev. Int. d'Arch Num.*, 1898, Pl. Z, 1 (inaccurately described).

c. Berlin. $\mathcal{A}\mathcal{R}$ 21/21.5 mm. 7.31 gr. Ex. Löbbecke Coll. (Sambon, Paris 1899 Sale).

d. Naples. $\mathcal{A}\mathcal{R}$ 20 mm. (Poor). Mus. Naz., Santangelo Coll., Fiorelli, No. 2368, cf. L. Sambon. p. 240, No. 36.

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	<p style="text-align: center;">Type No. 59</p> <p>Phalanthos, the hair long, naked and ithyphallic, seated on dolphin to l., his r. hand extended open-palmed, holding in l. a cuttle-fish (<i>Octopus vulgaris</i>). Beneath, cockle-shell (hinge upwards). Plain linear border.</p> <p>℞ Taras, naked to waist, seated to l. on diphros drawn in perspective, balancing on extended r. hand distaff, a lekythos suspended by a string from his l. wrist. His r. foot rests on stool with lion's feet, his l. foot drawn backwards. Concave field.</p> <p>a. Naples. ⅆ 22 mm. Mus. Naz., Fiorelli, No. PL. XIII. 1809.</p> <p>b. Paris. ⅆ 21.5/23 mm. 7.55 gr. de Luynes PL. XIII. Coll., No. 281. R. Rochette, Type XI, p. 208, cf. Pl. III, 27.</p> <p>c. M. P. Vlasto. ⅆ 21 mm. 7.72 gr. Ex. Sir PL. XIII. Herman Weber Coll. (ex. G. Smith, 1890 Sale, lot No. 435, ex. Lord Northwick Sale), L. Forrer, Weber Cat., Pl. 24. No. 537.</p> <p>d. Paris. ⅆ 21/22 mm. 5.80 gr. (very much worn). R. Rochette, Pl. III, 28. Mionnet, l. c., p. 453, p. 147. F. de Dominicis, T. II, p. 209, No. 2. Avellino, p. 78, 325.</p>
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e. E. T. Newell. \AA 22/23 mm. 7.65 gr. Ex. Hirsch, XXVI 1910 Sale, No. 171, Pl. IX, from the 1908 find.

f. Sir Arthur Evans. \AA 21 mm. 7.89 gr.

g. London. \AA 22.5 mm. 7.853 gr. Brit. Mus. Cat., No. 80, Horsemen, Pl. I, 10 (R. Payne Knight, p. 290, No. M5).

[Cf. also \AA 21. 7.88 gr. Hirsch, XV Sale, No. 388 (Philipsen). Strozzi Sale, No. 241, 2 examples. Stiavelli, Rome, 1908 Sale, No. 32, \AA 22. 7.60 gr.]

Type No. 59A

From same die as No. 59.

$\text{R}\gamma$ Same, from another die.

a. Berlin. \AA 21/22 mm. 7.81 gr. Ex. Löb-PL. XIII. becke Coll. (ex. Güterbock Coll.).

b. Winterthur. \AA 22 mm. 6.35 gr. (not fine). Musée Civique (ex. F. Imhoof-Blumer Coll.).

[The obv. die has two globular flaws beneath extended r. hand of Phalanthos].

Type No. 59B

From same die as No. 59.

$\text{R}\gamma$ Same, of poor style, the head of Taras leaning backwards. Outline of reverse die visible.

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	<p> <i>a.</i> Parma. \AA 21 mm. 7.92 gr. PL. XIII. <i>b.</i> Vienna. \AA 22 mm. 7.75 gr. Ex. Carelli Coll., Carelli D. 74. <i>c.</i> Prince of Waldeck. \AA 21 mm. 7.75 gr. <i>d.</i> E. S. G. Robinson. \AA 21/22 mm. <i>e.</i> M. P. Vlasto. \AA 21 mm. 7.64 gr. <i>f.</i> Cambridge. \AA 19/20 mm. 6.80 gr. (poor). Fitzwilliam Mus., McClean Coll. (Hirsch XIX Sale, No. 53, Pl. I.) </p> <p style="text-align: center;">Type No. 59C</p> <p>Same type, of barbarous style.</p> <p>\AA Same type, of barbarous style. (No stool ?).</p> <p> <i>a.</i> Paris. \AA 18/22 mm. 7 gr. (f. d. c). R. Rochette, Type X, p. 207, Pl. III, 26. PL. XIII. Mionnet suppl., No. 452. F. de Dominicis. T. II, 209, No. 1. Avellino, p. 78, No. 324. </p> <p style="text-align: center;">Type No. 59D</p> <p>Same type, of very barbarous style.</p> <p>\AA Same type, of barbarous style.</p> <p> <i>a.</i> Vienna. \AA 22 mm. 7.75 gr. (Ex. Carelli PL. XIII. Coll.), Carelli D. 73, N. I. V. T., 61. </p>
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Type No. 59E

Same type, of poor, native workmanship.

℞ Same, of weak style [cf. type 53B Pl. XII, by the same engraver]. Outline of reverse die visible.

a. E. T. Newell. Ⓐ 20.5 mm. 7.57 gr.

PL. XIII.

Type No. 60

From same die as No. 59.

℞ Taras, naked to waist, seated to l. on diphros drawn in perspective, extending in r. hand kantharos (?) or bird (?), his l. hand resting on corner of seat. Very fine style.

a. Cl. Côte. Ⓐ 21/22 mm. 7.30 gr. (very much PL. XIII. damaged by oxidation and bad cleaning).

Type No. 36. This unpublished plated coin is unique in my experience and, although in very poor condition, being apparently a mule of the preceding No. 34 [cf. Pl. VIII] and the following No. 37, it is described here as a *trait-d'union* between the oekists of Period III and IV.

Type No. 37. This is one of the most charming and exquisite types in the whole

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	<p>series, a real masterpiece of skilful equipoise and harmonious simplicity. This new version of the seated Taras holding a bird, probably a dove, by the tips of its wings, finds a parallel on many vase-paintings principally on Attic sepulchral white lekythoi dating c. 480 to 450 B. C. That the dove may have been connected with the cult of the heroized Taras is probable from its appearance on several extremely rare, new divisions of the Tarentine nomos struck under Attic influence after the foundation of Thurium. We have already noted a dove (cf. note No. 67a.) with flapping wings, seated beneath the sacred diphros, on a trihemionbol probably belonging to the same issue as our No. 37. On the reverse of contemporary obols with the head of Taras on the obverse, we find the representation of a dove-cote, at times represented facing—at times seen sideways.¹⁴² The extravagant explanation of Taras holding the dove, given by Cavdoni in his <i>Spiceligio Numismatico</i>, (a punning allusion between ΤΑΡΞΟΞ, the end of the bird's feathers, and the name of</p>
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ΤΑΡΑΣ), is fanciful and must be rejected. This charming version of the seated oekist can refer only to the old heroic cult of Taras. The association of the dove with the soul is much later in its origin and is too well known to be inquired into here.¹⁴³

Type No. 37A. This extraordinarily rare variety is distinctly ungraceful and of unpleasing style, in spite of redeeming points of merit such as the treatment of the himation's folds and the bold foreshortening of the seated oekist's left foot. We have here a typical example of the work of a second-rate engraver, possibly of Messapio-Iapygian origin. The prawn on the obverse is almost barbarous compared to the life-like model as figured on the master die.

The three small pellets, placed around Phalanthos in the field of the obverse are, however, a highly interesting new feature and can only be intended for marks of value. No doubt they indicate that the Tarentine nomos should be accepted in exchange of three Achæan thirds of stater, a wholly abnormal¹⁴⁴ division in the Tarentine silver series, though used very fre-

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	<p>quently at Metapontum; and we have seen, in the preceding historical summary, how closely related were Tarentum and Metapontum during the middle of the fifth century B. C. The brilliantly preserved specimen figured on Pl. IX. (Wt. 8.14 gr.) is the most recent oekist type represented in the 1914 hoard, buried probably not later than c. 440 B. C.</p> <p>The obverse die is found in use with two other reverse dies on No. 42 [cf. Pl. X] and the unique No. 54.</p> <p>Type No. 37B. The unusually light weight (6.91 gr.) and the very poor style of this curious oekist, formerly in the Löbbecke collection, make me suspect that this hitherto unpublished variety may possibly be an ancient, plated, forgery. Otherwise this oekist must have been minted by the Messapo-Iapygians at Luppia or Sal-lentium. The weight of similar barbarous imitations [cf. Types 42<i>a</i>, 52A.<i>a</i>, 59C, 59D] generally, is very inaccurate, ranging from 8.10 gr. to 5.95 gr.</p> <p>Type No. 37C. The style of this apparently unique variety is also poor and</p>
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the features of the seated Taras, with his very large nose, strongly recall the profile of Phalanthos on the obverse of No. 37A.

The compiler of the G. Sim sale catalogue describing this coin calls the object, held by Taras in his extended right hand, "a barbed hook with dolphin." A careful examination of the original shows that the engraver has really represented on this variety, in place of the usual bird, a fish, turned to left, held in a small net. It is, however, very probable that this fish is only the blundered representation of a dove's body with the head lacking, and that the ignorant engraver misunderstood the bird for a fish, owing to the fact that the dove's upturned head is very often off the flan on many specimens [cf. Strozzi Sale Cat., Pl. III, No. 842]. Avellino in a letter, quoted by R. Rochette, describes an oekist in the Naples Cabinet¹⁴⁵ on which Taras holds "*dextra parvum rete in quo piscis*", and L. Sambon very probably refers to the same type when writing (his No. 34) "*Il tient un petit filet où se trouve un poisson.*"

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	<p>Type No. 38. In order to give a complete representation of this rare and extremely beautiful type, I have given (Pl. IX) the photographs of four examples each one completing the other, as unfortunately the only brilliantly preserved specimen, the one from my collection, has its reverse type poorly centred. This striking version of the seated oekist offering a dove to a young panther's cub is markedly pictorial in character and must be compared to some of the finest contemporary products of the Terinaean and Pandosian mints on which the influence of the great Italiote painter Zeuxis is manifest.¹⁴⁶ The young animal, leaping at the dove, looks like a cat, and Lenormant¹⁴⁷ referring to this type, has written a very interesting chapter in order to demonstrate that outside of Egypt, the Tarentines were the first to domesticate the cat; but it has now been well established by Prof. O. Keller and others¹⁴⁸ that the cat did not become a domestic pet in Europe until later. The close connection of the heroized Taras with the Chthonic Dionysos is well established.</p>
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It marks the influence of a Dionysiac cult superimposed on that of the eponymous founder, and is sufficient to explain his association with the panther's cub.

Type No. 38A. This apparently unique variety is of poor style and possibly the work of the second-rate die-cutter who engraved Nos. 37A and 37C. On this reverse die the finely drawn stool placed beneath the right foot of Taras [cf. Pl. IX], on the master-die, is represented by an almost meaningless curved line.

Type No. 39. This unpublished and possibly unique oekist is unfortunately very much rubbed and in such poor condition that even an accurate description of the reverse type is out of the question. Taras is represented for the first time quite naked, and Dionysos-like he apparently strokes the panther's head. The traces of what may be a *lemniskos* show beneath his left elbow, but this object may be but a fold of his himation, hidden by his chair, and only partly visible over his right thigh.

Type No. 40. The instantaneous character of this very rare and picturesque

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	<p>variety immediately strikes the eye. The young panther, placed in the field behind the seated Taras, has seen or scented the dove, held in the oekist's right hand, and is about to spring forward. This highly pictorial composition is a <i>tableau de genre</i> and the real counterpart of No. 38. Unfortunately only the very poor specimen in the Berlin cabinet [cf. Pl. IX, 40b] shows clearly the dove held by Taras.</p> <p>Type No. 41. On this very rare version of unusually charming style, the seated hero holds, in place of the dove, on the back of his extended right hand a small spindle twined with wool at which the young panther, now turned to left, is about to spring. What an expression of the sinister attraction that a spool of wool has for playful kittens!</p> <p>Type No. 42. There can be little doubt that this reverse die, offering the same version as the preceding type, but of poorer style, is the work of the same die-cutter who engraved the obverse die of this extraordinarily rare type. Strange to say the spindle of wool, placed on the back of</p>
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the seated oekist's hand, is more clearly drawn on this replica than on the master-die. It disposes of the fanciful interpretations of this symbol hitherto offered by Carelli, James Millingen, R. Rochette and myself, when describing it as a murex or fish. The extremely fine example, 42*a* of Pl. X, from the 1914 find, shares the same obverse die with No. 37A, thus corroborating the classification proposed for all the preceding varied issues of fine style. [Nos. 37 to 41].

Type No. 43. This very scarce type which is the last to share the now very much worn obverse die, which we have found associated with four other reverses [Nos. 38, 39, 40 and 41] represents the seated Taras holding the spindle of wool downwards. Judging from the expectant expression of the seated oekist's gracefully inclined head, the absence of the panther is somewhat surprising and this version may be better explained when compared with the previous Nos. 40 and 41.

Type No. 44. No doubt Mr. Arthur Sambon¹⁴⁹ is right in ascribing this unique

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	<p>and very barbarous type to the mint of Luppia or Sallentium. The Messapo-Iapygian style and fabric are characteristic and unmistakable on this very curious imitation combining details taken from several contemporary reverse types.</p> <p>Type No. 45. This obverse type is of a somewhat archaistic, conventional style. The large, naturalistic cockle-shell, as well as the perfect design of the dolphin, preclude the possibility of an earlier issue, and the immediate utilization of the reverse die with the following No. 46 confirms that the purported archaic style of Phalanthos on the obverse die, is due to a mannered archaistic affectation. The rather uncomfortable position of the forward-leaning figure, on the reverse die, with the foot-stool placed at an impossible angle, gives to this otherwise very carefully engraved version, an appearance of top-heaviness that recalls the somewhat earlier Nos. 31 and 32 [cf. Pl. VII] of Period III, undoubtedly the work of the same engraver.</p> <p>Type No. 46. The new martial attitude of Phalanthos who wears a crested</p>
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Athenian helmet and who is armed with the Tarentine circular shield and two lances, while he extends in his right hand the akrostolion, offers a clear allusion to the termination of the long war between Tarentum and Thurium for the possession of the territory of ancient Siris. In my opinion this type must have been struck c. 432 B. C. to commemorate the foundation of Heraclea, the Athenian helmet being a reference to the peaceful understanding between the two cities.

Beneath the dolphin a large fish is to be seen swimming to the left, (cf. also Types 47B and 48). A visit to the Naples aquarium clearly demonstrated to me that this fish is the *serranus gigas* which is often to be seen even now on the Taranto fish market, and much sought for under the name of *cernia*. Previously Dr. Imhoof-Blumer and Dr. Keller¹⁵⁰ had recorded their belief that this fish was the *Chrysophrys Aurata Pagrus*. The accompanying illustration, taken from the "*Guida per l'Acquario della Stazione Zoologica di Napoli*," (1905), p. 21, fig. 56, will show that the *Serranus Gigas*

is identical in all its details with the coins' presentation.



This remarkable type is signed by the engraver with a microscopical "E" on the lower part of the dolphin's body, and even the late Prof. Von Sallet¹⁵¹ was inclined to regard this E as the initial of an artist's name. As already noted, the reverse die of this exceedingly rare type had been utilized with a very different obverse die on No. 45.

Type No. 47. Nos. 47 to 49 take high rank among the most beautiful of all Greek coins and are unsurpassed in elegance of design and exquisite delicacy of work.

The seated Taras extending a spindle twined with wool to the playful panther's cub, holds in his left hand a strigil and lekythos or oil flask of the aryballos type

with the regular trumpet-mouth, narrow neck, and almost spherical body. These small vases were always utilized by athletes for oil anointings after palestra-exercise following the¹⁵² use of the strigil (Ξύστρον) to remove dust and sweat. The strigil tied together with the lekythos was known under the name of Ξυστρολήκυθον¹⁵³ and it is natural to find Taras holding these athletic accessories, so much used during games instituted in his honor. It is more than probable that the foundation of Heraclea must have been celebrated by the Tarantines with the revival of some religious celebration of an agonistic character closely connected with the heroes and state patrons of the city. Type No. 47, on which the trammels of archaic convention are still felt, appears to be quite unique. Unfortunately the coin is not in the best of preservation.

Type No. 47A. That the seated oekist held the small aryballos, suspended with the strigil by a string from his left wrist, is ascertained by this coin, formerly in the Garrucci collection. Its poor style

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	<p>shows that it is probably only a plated imitation of the oekist in my cabinet [cf. Pl. X, 47].</p> <p>Type No. 47B. This very beautiful type must have been struck c. 430 B. C. and is contemporary with the splendid first issue of nomoi minted at Heraclea, representing on the reverse, Heracles naked, reclining on the rocks and holding a wine cup in his right hand. The usual assumption that this thoroughly Attic conception belongs to the fourth century is untenable,¹⁵⁴ and these rare nomoi must be dated immediately after the founding of the city.</p> <p>Type No. 48. Unfortunately none of the three known examples of this extraordinarily beautiful type is in fine condition. The truly Pheidian style of this type bears an unmistakable resemblance to that of the Parthenon frieze; and the wonderful foreshortening of the seated oekist's legs closely wrapped in the beautifully executed folds of the clinging himation, does not find a parallel short of the Terinæan masterpiece of the artist, representing the</p>
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<p>nymph seated on the overturned hydria,¹⁵⁵ (struck c. 425 B. C.). This reverse type shares the same obverse die with No. 47B, signed by the artist E who is possibly also the engraver of the beautiful reverse die.</p> <p>Type No. 49. The following series of oekists [Nos. 49 to 53D] have been grouped together as sharing a similar obverse die on which Phalanthos is represented holding a large shield of Mycenæan or Minoan shape usually improperly termed Boeotian, a fitting symbol for the Amyklæan-born hero.</p> <p>The seated Taras on the reverse of No. 49 is represented entirely naked, holding in his right hand a distaff and giving wing to a very small bird. This highly picturesque version was probably suggested by the contemporary Terinæan coinage.</p> <p>Type No. 50. This new and very fine version of the mythic founder seated with his legs crossed, holding his royal staff, has been closely copied on one of the finest Rhegian dies,¹⁵⁶ struck c. 420-416 B. C., thus giving us an approximate date for this Tarentine oekist.</p>	
ΑΝΔ ΜΟΝΟΓΡΑΦΗΣ	

Type No. 51. On this rare die, Taras holds a small bird having its feet tied with a lemniskos. This apparently confirms R. Rochette's suggestion that similar types refer to a custom, described by Athenæus. During games and festivities, doves and other birds were liberated after having had their feet tied with lemniskoi, so that they might be easily caught by the spectators. "Ἐκ τούτου περισσότεραι καὶ φάσσαι καὶ τρυγόνες καθ' ὅλην ἐξέλιπταντο τὴν ὁδόν, λημνίσκοις τοὺς πόδας δεδεμέναι πρὸς τὸ ῥαδίως ὑπὸ τῶν Θεωμένων ἀρπάζεσθαι." [Athen. V, p. 200C.]

The poor condition of the obverse die shows that this very pretty type must be dated among the latest of the oekist issues; and the presence of a very fine example of this type in the 1908 find points to the same conclusion. A white sepulchral Attic lekythos, in the Elgin collection,¹⁵⁷ is adorned with a strikingly similar representation.

The painting represents a fine female figure, holding a bird in her right hand. Seated on a chair, in front of a stele, she has the grace of the goddesses of the

Parthenon frieze and of the Hegeso of the well-known stele.

Types Nos. 52, 52A. The oekist No. 52 hitherto unpublished, is interesting as having been copied by the Messapo-Iapygians in a very ugly and barbarous style. Only two examples of these curious imitations have reached us, No. 52A,—both of unusually low weight [5.98 and 5.95 gr.] precluding the possibility of their currency at Tarentum. They were probably struck for local use at Luppia or Sallentum.

Types Nos. 53 to 57 and Nos. 59 to 59E. The rather monotonous new version of Taras seated on his diphros, balancing the distaff on the back of his extended right hand, while he holds in his left, at times the strigil and lekythos, at other times the lekythos alone, and in one case [No. 56A] nothing, is among the most common reverse types in the whole series; and taking into consideration the large number of extant specimens, these oekists must have been issued for a rather extended period. Both the 1908 hoard and the small Torre del Ovo find (1918) show that these types,

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	<p>not represented in the 1914 Taranto deposit, were certainly among the latest issued. The style of these coins and of many horsemen (cf. Evans', Period II), is strikingly similar. A close comparison between the oekist, 53D (Pl. XII), and the horsemen, Evans Pl. II, 10, or 53C. <i>a</i> and Evans Pl. II. 8, shows such close affinity in design that the same handiwork may be suspected in both cases. In my description of the very slight variations of these types I have followed as much as possible their somewhat intricate die-combinations, only a few of which call for any special notice. No. 53B is remarkably ugly and of very poor style but must be certainly contemporaneous with the reverses of Nos. 53 and 53A, of fine style, sharing with them the same obverse die. [cf. Plates XI and XII.]</p> <p>No. 53D [cf. Pl. XII], from the Löbbecke collection, now in the Berlin Cabinet is of very beautiful style and probably the prototype of the whole series.</p> <p>Type No. 55. The condition of the obverse die of this rather common variety shows its long service. It was first utilized</p>
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with the beautiful reverse of No. 37 [cf. Pls. VIII and IX]. The strigil, held by Phalanthos, is now almost obliterated by wear [cf. 55*a*, 55*b*, 55A]. The prawn, beneath the dolphin, is barely recognizable. It has been taken for a small dolphin by R. Rochette and others. On the reverse, the seated Taras is of unusually corpulent proportions and the type may well commemorate some agonistic festival. I have already mentioned on p. 89, when discussing No. 140, the remarkable fact that one of the examples of Type 55 in my cabinet, 55*b* on Pl. XII, in brilliant condition though not quite struck up, is plated and struck from the very same obverse and reverse dies as all the normal examples issued from the same die-combination that have come under my notice. So high an authority as Mr. E. T. Newell, while in Marseilles, after submitting my plated coin to a careful examination, fully agreed with the above surprising conclusion. This may also explain the abnormally low weight of No. 27 *h*.

Types Nos. 56, 56A. There is no doubt

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	<p>that the obverse die of these two very late types is the identical one used during Period III with three different reverses, described under Nos. 22, 23, 24 [cf. Pl. VII]. In fact I had at first felt inclined to bring down the three latter types to Period IV, and to consider them as late revivals of the much earlier Nos. 16 and 20 of transitional style. I have finally and somewhat reluctantly ascribed them to my Third Period, because of the early form ΤΑΡΑΝΤΙΝΟΞ on the reverse of the unique Type 22 (Santangelo, Naples, collection) and because of the fresh condition of the obverse die. It is further certain that No. 56, which shares its reverse die with a new obverse die of later style on No. 57 [cf. XII], can hardly be given an earlier dating than the one proposed here. That this No. 56A is one of the very latest oekists struck at Tarentum is proved by the presence of a rather fine example in the Torre del Ovo find.</p> <p>Type No. 57. Phalanthos, on this die, is seated sideways on his dolphin, as if in the act of vaulting off his marine charger.</p>
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The sea is represented by a naturalistic fish, of the *labrax* species, swimming over the curling crests of the waves. This convention for depicting the sea waves makes its first appearance on the contemporary horsemen in Evans' Second Period Type A, Plate II, 5, Type D₁, Plate II, 8 (now in my collection), Type D₂ (cf. Strozzi Sale Cat., Pl. III, 849, now in the J. P. Morgan coll.) and on two other very rare types, both represented in my collection and not described in the "Horsemen," on which the whole design is enclosed in a circle of waves, the first being an unpublished and presumably unique new obverse with reverse as Type A, Per. II, the second an earlier modification of Type K. Per. II (cf. Maddalena Sale Cat., Pl. II, 9—now in my cabinet—and Dressel, Berlin Cat. No. 96) inscribed TAPA | WT | NΩN. Unfortunately we have no oekist specimen of either Nos. 57 or 58, which share the same obverse die, in really fine condition, to give a complete representation of this new pictorial version of Phalanthos on his dolphin. The Berlin example, Type 57*b*,

198	ΤΑΡΑΣΘΙΟΙΚΙΣΤΗΣ
	<p>is the only one tolerably well centred. On the badly centred but otherwise fine coin in my cabinet there are apparently two minute letters ΟΠ, in the field to the left, above the dolphin's tail. They are also visible on the Berlin example, but they may be no more than traces of small breaks of the die (cf. Pl. XII, 57 c). Should, however, the letters ΟΠ really exist, they are either the <i>marque d'atelier</i> of Poseidon or the initials of the actual die-cutter who may well have also engraved the obverse die of No. 45 (Pl. X) which is of a strikingly similar style.</p> <p>Type No. 58. The five known examples of this very rare new version, in spite of their rather worn condition, rank among the most beautiful representations of the seated oekist. Taras, strigil in hand, is represented seated on some low structure of masonry, possibly the walled enclosure of the palestra, as if keenly watching an athletic contest. The flowing hair of the hero points to a more recent Pheidian tendency which we find paralleled in certain figures of the Parthenon frieze.¹⁵⁸</p>
	NUMISMATIC NOTES

Types Nos. 59 to 59E. This new obverse type, of very fine style, is rarely met in fine condition. Phalanthos extending his right hand open palmed¹⁵⁹ and holding in his left hand a cuttle-fish is a revival of the very early No. 9 of Period I. This type has been widely imitated by the Messapo-Iapygians, and I have figured on Pl. XIII, 59C, 59D, two curious barbaric copies which may have been struck by these *Mixo-Barbari* borderers. It is astonishing that so able a numismatist as R. Rochette,¹⁶⁰ when first publishing the very barbarous nomos figured here, Pl. XIII, 59C, a piece which is only a poor imitation of 59B [cf. Pl. XIII] should have written "*cette médaille tient par une sorte de roideur de style à une époque ancienne.*"

Type No. 60. This hitherto unpublished reverse, representing probably for the last time the heroized oekist extending the kantharos (?), is unfortunately in too poor condition for accurate description.

It is impossible to assign a precise date to the cessation of the oekist issues, or to decide whether the final adoption of the

equestrian types must be regarded as the outcome of a new aristocratic reaction placing the chief authority in the hands of an annual strategos, as Garrucci believes, or merely as a testimony of the pride taken by the Tarentines in the training that made their cavalry so famous in the field. There is no doubt that this important revolution took place sometime between c. 420 and 380 B. C., the time limits assigned by Sir Arthur Evans to his horsemen of his Second Period. A close study of all the earliest equestrian types has convinced me that their classification must be re-examined and somewhat altered if we take into consideration the type figuring on the obverse die. Throughout the earliest Tarentine coinage, down to the end of the fifth century, with only three exceptions [the oekists of Nos. 1, 25 and 33], Phalanthos astride the dolphin, is always placed on the obverse die. Likewise on all the earliest horsemen, the city's arms invariably figures on the obverse die. After c. 420 the *παράσημον* is transferred to the reverse. Taking this important consideration into account we

shall note that the style characteristics, the form of the inscriptions and the equestrian types of all the early transitional style, with the horsemen on the reverse die, fully corroborate the anteriority of their issue. Therefore the following five horsemen of Evans' Period II with the *παράσημον* still in its usual position, must be assigned to Period I, c. 450-430 B. C.

1. Evans Type A₁ (Per. II, Pl. II, 5) inscribed ΘΑΤ. This martial type must have been struck during the war between Taranto and Thurium and may have been issued some time before 432 B. C.

2. I have already noted that Type B [Evans, Per. II., Pl. 4, cf. Fig. No. 3, p. 112.] belongs to one of the early issues of Period I.

3. Evans Type F₁ (Per. II) is the description of only a poor representation given by Carelli T. CIX, 102, of Type C₁ belonging to Evans' Per. I, reading ΤΑΡΑΝΤΙΩΝ (), not ΝΩΝΙΤΝΑΘΑΤ retrograde as given by Sir Arthur Evans [cf. Horsemen, Pl. XI, 1].

4. Type E₁ (Evans, Per. II, Pl. II, 9) is

202	ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ
	<p>struck from the same obverse die as Type C₁, of Period I, and must have been, judging from its very early style, certainly struck before 420 B. C.</p> <p>5. Type G [Evans, Per. II—cf. Strozzi Sale Cat., Pl. III, 847, now in my collection] shares the same obverse die with three other very early horsemen of Period I, similar to Type A₂ of Evans, Per. I [cf. Pl. II, 3].</p> <p>The horsemen type is transferred to the obverse die for the first time on Type C₁ of Period II [Evans, Pl. II, 6], and the reverse of this type, exhibiting Phalanthos on his dolphin holding on his left arm a lance and large oval shield, while extending in his right a crested helmet, shows close affinity to the oekists of Nos. 49 to 53D, which are among the latest issued. I have in my cabinet three horsemen of a rather common variety of Type C, Evans, Period II, not described by Sir Arthur Evans. This type is represented in the Hunter collection [Macdonald, l. c., p. 70, No. 40], one of them bearing the <i>παράσυμον</i> on the obverse die, and the two others with</p>
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<p>this type transferred to the reverse die.¹⁶¹ Owing to the similarity of the dolphin rider of this type with the reverse of Evans, Type H₁ (Per. II), these interesting horsemen may be dated c. 400 B. C.; and this gives us the extreme limit of the oekist issues, my conclusion being that the last Tarentine nomos exhibiting the seated oekist was struck about when the horseman type was transferred to the obverse die position, where it was maintained thenceforward on the Tarentine nomoi for fully two hundred years.</p>	
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APPENDIX A

*1908 Find from the Ionian shore of
Calabria (?)*

Oekists.

Tarentum. 1 Type 30f, cf. Pl. VII. 7.28 gr. Not fine.

1 Type 49h, cf. Pl. XI. 7.35 gr. V. good.

1 Type 51c, cf. Pl. XI. 8 gr. Very fine.

1 Type 53b, cf. Pl. XI. 8.05 gr. Ex. fine.

1 Type 59e, cf. Pl. XIII. 7.65 gr. Fine.

A few archaic nomoi as Evans, Pl. I, 4 and 5. Well preserved.

A few archaic horsemen, of Per. I, Evans, Pl. II, 3, Pl. XI, 1, V. well preserved to f.

A few archaic horsemen of Per. II, Evans, Pl. II, 5, 11, etc. Fine and v. fine.

Many archaic horsemen of Per. III, Evans, Pl. III, 2, 3, 4, 5, etc. Extr. fine.

Many archaic horsemen as Hirsch XXVI Sale, 1910, Taf. IX, 176, 177, f. d. c.

Metapontum. Many varied types issued c. 400-380 B. C. Very fine.

A few signed ΑΡΙΞΤΟΞΕ as Brit. Mus. Cat. 74, f. d. c.

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<p style="text-align: center;">ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ</p>	<p style="text-align: center;">205</p>
<p>Thurium. Many varied types. 425-380 B. C, inc. a few signed ΜΟΛΟΞΞΟΞ. Very fine to f. d. c.</p> <p>Terina. A few types struck c. 425-420 B. C. Fine and very fine.</p> <p>Croton. Many varied types, c. 440-400 B. C., v. fine; and a v. fine example of Head, <i>Hist. Num².</i>, fig. 54, p. 96 (before c. 390 B. C.).</p> <p>Corcyra. Very many staters absolutely f. d. c., weighing 11.10 gr., as Hirsch XXIX Sale, 1910, Taf. VII, 381-384, c. 400-350 B. C.</p> <p>Considering the splendid condition of all the Tarentine horsemen of Period III (dated c. 380-345 B. C.), of the ΑΠΙΞΤΟΞΕ coins of Metapontum, (c. 400-350 B. C.), and the Corcyraean staters, absolutely f. d. c., this very important hoard which included also a few Corinthian pegasoi, seems to have been deposited c. 360 B. C. at the very latest.</p>	
<p style="text-align: center;">AND MONOGRAPHS</p>	

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	<p style="text-align: center;">APPENDIX B</p> <p style="text-align: center;"><i>April, 1912. Torre del Ovo Find.</i></p> <p>Tarentum. 1 Oekist of Type No. 56A. c, of Plate XII, in good condition, the obv. oxidized.</p> <p>1 Horseman, Evans, Per. II, Type L2, cf. Pl. II, B. C. 420-380, v. well preserved.</p> <p>2 Horsemen, Evans, Per. VI, A1, cf. Pl. VIII (B. C. 302-281). Both f. d. c.</p> <p>1 uncertain Horseman. Damaged by oxidation.</p> <p>Heraclea. 1 Carelli, N. I. V. T., CLX 2 (c. B. C. 370-), cf. Jameson Cat., Pl. XI, 241. Fine.</p> <p>2 Brit Mus. Cat., Italy, No. 33 (B. C. 370-281). Both very much eroded.</p> <p>Metapontum. 1 B. M. C., 122 (B. C. 400-350). Very fine.</p> <p>1 B. M. C., 96 (B. C. 330-300). Extr. f.</p> <p>1 B. M. C., 96 (B. C. 330-300). Fine.</p> <p>1 B. M. C., 106 (B. C. 330-300). V. fine.</p> <p>1 B. M. C., 108 (B. C. 330-300). Fine.</p> <p>3 B. M. C., 108 (B. C. 330-300). Oxidized and eroded.</p>
	NUMISMATIC NOTES

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<p>Croton. 1 B. M. C., 92 (Before B. C. 390). V. fine.</p> <p>Thurium. 1 B. M. C., 51 (B. C. 400-350). Poor.</p> <p>1 B. M. C., 57 (B. C. 400-350). Poor.</p> <p>Total of coins: Tarentum, 5; Heraclea, 3; Metapontum, 8; Croton, 1; Thurium, 2. Total, 19.</p> <p>The brilliant condition of the 2 Horsemen of Period VI makes it probable that this small hoard was deposited about c. 392 B. C., at the very beginning of Sir Arthur Evans' Period VI.</p>	
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208	ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ
	<p data-bbox="493 265 705 294">APPENDIX C</p> <p data-bbox="334 323 871 398"><i>1914 Find from the neighborhood of Taranto.</i></p> <p data-bbox="277 422 923 541">1 ΖΑΡΑΤ. Phalanthos on dolphin to r., l. hand extended. Raised border, on which pellets.</p> <p data-bbox="277 546 923 624">R̄ Wheel of four spokes. Worn. 8.01 gr. I</p> <p data-bbox="277 629 923 707">2 Do. from same dies as Regling, Warren Cat., Taf. I, 17.</p> <p data-bbox="277 712 923 789">R̄ From same die as No. 1. Very much worn and oxidized. 7.20 gr. I</p> <p data-bbox="277 794 923 954">3 ΤΑ to r. Same type of barbarous style. Phalanthos holds cuttle-fish in r. hand and extends l. (Unpublished and presumably unique. M. P. Vlasto coll.).</p> <p data-bbox="277 959 923 1078">R̄ Wheel of four spokes (hammered edge). Much worn and oxidized. 7.94 gr. I</p> <p data-bbox="277 1083 923 1202">4 ΤΑΡΑ Phalanthos on dolphin to r. holding cuttle-fish in r. hand, l. arm extended. Cable border.</p> <p data-bbox="277 1207 923 1326">R̄ ΤΑΡΑΞ Bridled hippocamp to l. Plain incuse border. Not well preserved. 7.96 gr. I</p>
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ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ	209
<p>5 Do. from same die, cf. Brit. Mus., No. 48.</p> <p>℞ From same die as No. 4. Much worn and eroded. 7.10 gr. I</p> <p>6 Oekist of Type No. 2g.</p> <p>℞ Type No. 2g. Well preserved. 7.93 gr. I</p> <p>7 >ΑϺΑΤ Phalanthos on dolphin to r. both hands extended. Beneath, cockle-shell. Border of dots. See Fig. No. 1, p. 67.</p> <p>℞ Head of nymph Satyra to r. within wreath of olive. Well preserved but badly struck and obv. slightly eroded. 8.02 gr. I</p> <p>8 Oekist of Type No. 14H. PL. IV. Well preserved but pitted by oxidation. 7.73 gr. I</p> <p>9 Oekist of Type No. 16B. PL. V. Very much worn. 7.52 gr. I</p> <p>10 Oekist of Type No. 16H. PL. VI. V. g.; eroded by oxidation. 7.40 gr. I</p> <p>11 Oekist of Type No. 19. PL. VI. Worn. 7.26 gr. I</p> <p>12 Oekist of Type No. 30. PL. VII. Very good, the reverse pitted by oxidation. 7.38 gr. I</p>	
ΑΝΔ ΜΟΝΟΓΡΑΦΗΣ	

210	ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ
	<p>13 Oekist of Type No. 34. PL. VIII. V. f.; somewhat eroded. 7.73 gr. I</p> <p>14 Oekist of Type No. 37A. PL. IX. Brilliant f. d. c. 8.14 gr. I</p> <p>15 Oekist of Type No. 42. PL. X. Brilliant, obverse somewhat oxidized. 8.08 gr. I</p> <p>Total of Tarentine nomoi: Wheel rev., 3; Hippocamp rev., 2; Head of Satyra rev., 1; Oekist rev., 9. Total, 15.</p>
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¹ Arist. *Politics* V, 28, VI, 3, 5.

² F. Lenormant, *La Grande Grèce* 1881, p. 30.

³ Dr. K. Regling [cf. "Klio," 1906, Bd. VI, Heft 3, p. 504] has finally shown that at Tarentum and Heraclea the silver stater and not the diobol was called by the ancients *nomos*: Ἰταλικὸς νόμος. In the Achæan colonies the stater or unit was divided into thirds and sixths, according to the Corinthian system, the early Tarentine nomoi are by halves and again by fifths. That even the early incuse nomos at Tarentum was considered as a didrachm is confirmed by an extraordinarily rare variety exhibiting beneath the usual dolphin-rider the addition of two round pellets which can scarcely be taken for anything but marks of value. Of this remarkable and unpublished type only two specimens have come under my observation. The first is in the Paris *Cabinet des Médailles* (No. 1215, weight 7.89); the second is now in my cabinet (weight 7.95). It was formerly in Sir Herman Weber's splendid collection [cf. L. Forrer, Cat. Weber, No. 511, Pl. 24].

⁴ Raoul Rochette, *Mémoires de Numismatique et d'Antiquité; Essai sur la Numismatique Tarentine*. Paris, MDCCCXL, pp. 197-256.

⁵ Op. cit. Pls. II to IV. The author gives the engravings of 25 varieties all from the *Cabinet*

du Roi or from his own collection. In this paper 116 different die-combinations are described and I have been able to examine over 400 coins of this class.

⁶ *Num. Chron.*, 1889, p. 3.

⁷ F. Carelli, *Numorum Veterum Italiae descriptio*. Naples, 1812, Pls. CVI, CVII, 25 types engraved from various collections but mostly from Carelli's own cabinet which has since passed, almost in its integrity, into the Vienna collection (cf. K. Regling *Terina*, p. 6).

⁸ Garrucci "*Le monete dell' Italia Antica*," Rome, 1885, cf. Pl. XCVII, where only eight types are engraved with the following errata: No. 34 joins by mistake two dies belonging to different types (cf. R. Rochette, Pl. IV, 34 and 36). No. 29, the inscription of the reverse is omitted. Although the engraving of this plate is very fine, the style of each type is invariably badly rendered.

⁹ Cf. T. CVI, 51, T. CVII, 69.

¹⁰ Cf. T. CVII, 72. All the following (T. CVI) 52, 53, 54, 56, 61 and 64, (T. CVII) 67, 68 are very inaccurately engraved. The module of all coins is invariably too large. I have been able to identify beyond doubt all the original coins engraved by Carelli with the possible exception of T. CVII, 68. Cf. Type No. 21.

¹¹ Cf. Head, *Hist. Num.*,² 1911, p. 55. K. Regling, *Sammlung Warren*, 1906, p. 4, Nos. 21-27. K. Regling, *Klio*, op. cit., p. 515. Rev. A. W.

Hands, *Coins of Magna Græcia*, p. 20, etc. It is true that so prominent a numismatist as E. Babelon in his *Traité*, Vol. I, Part II, p. 1395, possibly inadvertently, refers to the seated "Dêmos," but no doubt when this learned author revises, in a subsequent volume, the Tarentine coinage after B. C. 473, he will subscribe to the more recent "oekist" theory which even R. Rochette (cf. op. cit, p. 233) had once entertained only to reject it in favor of the hypothetical Dêmos. However, quite recently, M. Babelon in his *Les Monnaies Grecques. Aperçu historique*, Paris, 1921, p. 86, again refers to the seated Dêmos.

¹² *Num. Chron.*, 1897, "The type known as the Dêmos on the coins of Rhêgium," p. 173, and *ibid.* 1899, p. 5.

¹³ *Num. Chron.*, 1898, *Rhêgium-Iocastos*, p. 281.

¹⁴ The seated figure at Tarentum is Taras, the heroic founder of Tarentum, the *οἰκιστής*, just as the seated Heracles is the mythical founder of Croton, on the well known didrachms of this town inscribed: ΟΞΚΞΜΤΑΜ. (Head, *Hist. Num.*,¹ fig. 25.)

¹⁵ Op. cit, p. 19.

¹⁶ Cav. Quintino Quagliati, the erudite keeper of the Museo Civico at Taranto, has brought together in the second room of the Museum, numerous Ægean potsherds, partly belonging to a late Minoan period, partly to the Mycenæan class, all (circa B. C. 1300) found on a spot called "Scolio del Touno" not far from the ancient

Tarentum. There is also a fine display of bronze and ivory implements and large selection of Messapo-Iapygian pottery much earlier in date than B. C. 705, presumed date of the foundation of Tarentum. Cf. Q. Quagliati, *Notizie degli Scavi*, 1902, p. 583, and Adolphe Reinach, *Notes Tarentines* in "Neapolis," Vol. II, Part III. p. 245, and Note No. 2.

¹⁷ Pausanias, X, 10. Lenormant, op. cit, p. 22. Geffcken, *Grundung von Tarentum* (*Fleck-eisen's Jahrbücher*, 1893). Antiochus, F. H. G., I, 184, 14 (ap. Strab. 279c). Probus ad Georg, II, 176. Pais, *Storia della Magna Græcia*, I, p. 611, and *Ricerche Geografiche*, p. 111. Prof. Andrea Martini, *Guida di Taranto*, p. 6.

¹⁸ Herodotus, VI, 38. G. Macdonald, *Coin Types*, p. 104.

¹⁹ *Journal of Hell. Stud.*, 1918, p. 99, Note 46.

²⁰ E. Babelon, *Traité*, op. cit, p. 1379. H. Dressel, *Beschr. der Ant. Münzen*, Berlin, III Band, Italien, p. 223.

²¹ Cf. Evans, op. cit, p. 14, Pl. II, 5, and Pl. VI, 10. Cf. also Evans, Type G, Per. II, with the kantharos symbol beneath the heroized rider, in this case certainly Taras.

²² Cf. Lenormant, op. cit., p. 397. J. R. Anderson, *Journal of Hell. Stud.*, 1883, p. 130. A. J. Evans, op. cit, pp. 18, 19.

²³ *Klio*, loc. cit., p. 515.

²⁴ Cf. No. 26, *Die Griechischen Münzen der Sammlung Warren*. Berlin, 1906, and *Klio*, l. c.,

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<p>p. 515, Note 4. For a probable explanation of this abnormally low weight cf. p. 45.</p> <p>²⁵ Cf. K. Regling, <i>Klio</i>, l. c., p. 515, Note No. 2, and A. Sambon, <i>Rev. Num.</i>, 1903, pp. 58, 59.</p> <p>²⁶ Cf. <i>Rev. Num.</i>, 1904, Pl. V, No. 1. The date proposed for that presumed unique variety now appears to me somewhat too early.</p> <p>²⁷ Cf. R. Jameson catalogue, Pl. IV, No. 87. Babelon, <i>Traité</i>, Pl. LXV, 13. Dressel, Berlin Cat., Nos. 62, 64. H. Willers, <i>Studien zur Griechischen Kunst</i>, Leipzig, 1914, Pl. XII, 6. R. Rochette, l. c., Pl. II, 16.</p> <p>²⁸ Evans, Pl. I, 6. Babelon, <i>Traité</i>, Pl. LXV, 20. H. Willers, l. c., Pl. XII, 3, 4, 5, and R. Rochette, Pl. I, 5, 9.</p> <p>²⁹ Much praise must be bestowed on archæologists and Museum curators who, as the learned Prof. P. Orsi of Syracuse, give us regularly notes on coin finds they have been fortunate enough to secure for the museums under their care. Cf. <i>Atti et Memorie del Istituto Italiano di Numismatica</i>, Vol. III, 1917, p. 5, and p. 31, also Vol. III, 1919, p. 5.</p> <p>³⁰ Cf. <i>Num. Chron.</i>, 1907, Pl. X, No. 2 (my coll.).</p> <p>³¹ Cf. <i>Num. Chron.</i>, 1907, p. 281, Note 12. I have lately had the good fortune of securing, for my cabinet, a beautiful example (wt. 8.00) of this all but unique incuse nomos with inscription retrograde on both sides. The obverse is from the same die as the Athenian coin (cf. A. Posto-</p>	
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laka, Κατ. τῶν ἀρχ. νομίσ. Athens, No. 219) but the reverse die has been recut and altered by the addition of two very small round pellets in relief on the dolphin-rider's thigh (see above, Note No. 3). This remarkable nomos comes from a small Southern Italy find made years ago which included only four other incuse staters, all in fine condition, two of Croton [one as Pozzi Sale Cat., Pl. IX, 284, weight 8.09, the other in brilliant condition as B. M. C., No. 33, weight 8.10], and two of Caulonia [one as Babelon, *Traité*, Pl. LXX, 14, weight 8.05, the other as B. M. C., No. 7, with two circles or O on reverse, weight 8.04]. The date of this small deposit may have been c. 510 B. C. and the Tarentine incuse one of the latest issued for commerce with Achæan colonies.

³² Cf. Brit. Mus. Cat., Italy, Nos. 41, 42, 47, 48, 200. Dressel, Berlin, l. c., Nos. 56, 58, 61, 72, 96, etc.

³³ Cf. *Journal Intern. d'Arch. Num.*, Athens, 1899, p. 308, No. 3 and p. 322, No. 1.

³⁴ Mr. Arthur Sambon, when first he published (cf. *Bulletin de Numismatique*, 1900, p. 9) a unique Tarentine *third* of nomos, weighing 2.48, from the Prof. Dell Erba's collection [thence in the Philipsen coll. sold by Dr. Hirsch XV Sale, Pl. II, No. 374 and now in my cabinet] a quite abnormal division of the nomoi with the hippocamp reverse, struck on a thick flan, and of poorer style than the hippocamp nomoi of spread fabric, says: *Il y a évidemment dans cette série des inter-*

positions de types qui compliquent beaucoup les recherches, et on pourra arriver à des résultats satisfaisants seulement le jour où on aura sous les yeux une série complète de moulages de toutes les variétés connues," and the learned numismatist adds "ces deux séries de monnaies ont dû pourtant avoir un cours simultané." Cf. also the highly important paper of the same author "*Art Hellène et Art indigène*," in *Rev. Num.*, Paris, 1916, p. 1.

³⁵ Cf. the nomos with the wheel reverse of Messapo-Iapygian style. Hirsch XV Sale, 1906, Pl. II, No. 370, now in my collection.

³⁶ *Catalogo del Museo Nazionale de Napoli I. Monete greche, Napoli*, MDCCCLXX, No. 1800.

³⁷ The hair and beard of Taras on Garrucci's engraving T. XCVII, 27, wrongly appear as curly. The diphros, exergue and borders are rather inaccurate, the archaic style of reverse quite unrecognizable.

³⁸ Evans, l. c., pp. 18, 19.

³⁹ Cf. Perrot & Chipiez, *Histoire de l'Art*, Tome VIII, p. 134 fig. 74, p. 439 fig. 215. E. A. Gardner, *Handbook of Greek Sculpture*, p. 149 fig. 22.

⁴⁰ For the association of the kantharos with the old heroic cult of Tarentum and Sparta cf. Evans, l. c., p. 18, and *Journal Hell. Stud.*, 1886, "Recent Discoveries of Tarentine Terra Cottas." R. Rochette, op. c., p. 233. E. Pottier & S. Reinach, *La nécropole de Myrina*, pp. 440, 441.

⁴¹ Cf. R. Rochette, l. c., p. 213, Note No. 1.

⁴² R. Rochette, l. c., p. 215, and M. Lorentz, *De Civit. Vet. Tarent.*, Leipzig, 1833, pp. 11, 13.

⁴³ Cf. A. J. Evans, *Journal of Hell. Stud.*, 1886, p. 45. Elworthy, *The Evil Eye*, pp. 370, 374, 381. F. Lenormant, op. cit., p. 323. F. Cumont, *Rev. Arch.*, 1917, pp. 87, 92, No. 3, and 98, No. 12.

⁴⁴ No doubt the engraver represented Taras of rather mature age and bearded in order to differentiate him from Phalanthos of the reverse, and we have already noted (see p. 6) that, according to tradition, Taras had ruled a number of years over the city he founded before his death and heroization.

⁴⁵ Cf. S. Reinach, *Recueil de Têtes Antiques*, p. 4, Pls. 5 and 6. E. Gardner, l. c., p. 233, fig. 54.

⁴⁶ Cf. Perrot & Chipiez, l. c., p. 168, figs. 235, 236.

⁴⁷ The dotted exergue between two plain lines points to an early date. It is found on incuse staters of Sybaris (E. Babelon, *Traité*, Pl. LXVII, 5, 7, 8), of Laos [l. c., Pl. LXVIII, 1], of Croton [l. c., Pl. LXIX, 10, 13], all struck before 510 B. C.

⁴⁸ Cf. *Rev. Num.*, 1904, M. P. Vlasto, Pl. V, No. 1 [c. 520-510 B. C.]. Cat. R. Jameson, Pl. IV, 83 = Berlin, Dressel, l. c., No. 48 — H. Willers, l. c., Taf. XII, 2 (from my cabinet) [c. 510-500 B. C.]. Naples, Fiorelli, No. 1796 — a specimen in my coll. (weight 8.03) [c. 500-480 B. C.]. The earlier nomoi with the wheel reverse [cf.

Macdonald, coll. Hunter, Pl. IV, 21] represent the dolphin-rider, as on the incuse nomoi, in a stiff archaic pose resting his right hand on the dolphin's back and extending his left. The evidence of the Sava Find, 1856, in which the "wheel" nomoi were numerous and somewhat worn allows us to date the earlier types of this class as far back as 520 B. C.; cf. L. Sambon, *Recherches sur les Monnaies de la Presqu'île Italique*, Naples, 1870, p. 30.

⁴⁹ All the above is confirmed by the, 1833, Calabrian find (cf. Avellino, 1833) and the Sava deposit referred to above. Both finds contained numerous worn nomoi with the wheel, a certain number of nomoi with the hippocamp reverse, in very fresh condition, and a few also brilliant examples with the archaic head reverse. In the Pæstum Find, 1858, which, according to Sir Arthur Evans [cf. l. c., p. 40], was buried as late as c. 392 B. C., there occurred a few not well preserved nomoi, with the hippocamp and seated oekist reverses side by side with fine and very fine equestrian types of Periods I and II [B. C. 450-380].

⁵⁰ Cf. *Jour. of Hell. Stud.*, 1907, Pl. IV, 2, and p. 97, fig. C. Mr. W. Wroth dates this type c. 480-470(?) B. C., but one must not forget that this plated stater is presumably an ancient forgery and cannot well represent the true archaic style of the genuine issue, just as our plated oekist Type No. 1A underrates the architype.

⁵¹ Cf. *Rev. Num.*, 1912, p. 16, Pl. III, No. 1, now in Mr. R. Jameson's coll. [cf. *Cat. R. Jameson*, Pl. XCVI, 1109a].

⁵² This plated nomos is now in my cabinet, owing to the kindness of Mr. R. Jameson who had acquired it with Sir Arthur Evans' splendid first collection. It was only after judicious cleaning, that it was found that the coin was plated, and from the same dies as another poor example for years in my collection.

⁵³ Cf. *Rassegna Numismatica*, Anno XI, 4.

⁵⁴ Cf. Babelon, *Traité*, Pl. LXVI.

⁵⁵ Cf. *Revue Numismatique*, 1916.

⁵⁶ Cf. P. Gardner, *A History of Ancient Coinage*, 1918, p. 201, and E. Gardner, *Handbook of Archæology*, p. 165.

⁵⁷ Cf. Head, *Coins of the Ancients*, Pl. 7, 5 — B. M. C., Italy, p. 165, No. 35. The cable border is also found on an unpublished variety in my cabinet (weight 8.02). It is of charming archaic style, with the wheel-spokes ornamented with delicate flutings and comes from the Gerace (?) 1920 hoard, see p. 71.

⁵⁸ Cf. Macdonald, *Hunter Cat.*, Pl. IV, 21, etc.

⁵⁹ Cf. G. F. Hill (*Greek Coins and their Parent Cities*), *Cat.* of the J. Ward coll., Pl. I, No. 20, etc.

⁶⁰ Cf. Prof. P. Orsi, op. cit., pp. 34, 35. A. Sambon, *Rev. Num.*, 1916, p. 1. E. J. Seltman, *Num. Chron.*, 1899, p. 330, and *Rev. Num.*, 1908, p. 276. P. Gardner, l. c., p. 204. The cable

border figuring on the unique *Jahva* coin, probably struck at Gaza, apparently confirms Mr. W. Deonna's explanation.

⁶¹ Cf. *Revue des Etudes Grecques*, 1918, Tome XXI, p. 64, "*Le nœud Gordien*."

⁶² Paris, 1919, *Edition Leroux*, p. 194.

⁶³ The damage to this die probably took place at the very outset of its use.

⁶⁴ Cf. *Rev. Int. d'Arch. Num.*, 1901, 'Ερμηνεία τῶν μνημείων του Ἑλενιστιακοῦ μυστικοῦ κυκλοῦ, p. 483.

⁶⁵ l. c., R. Rochette, p. 218.

⁶⁶ Cf. Furtwangler, *Masterpieces of Greek Sculpture*, pp. 428, 429, and C. Smith, *Guide to the Sculptures of the Parthenon*, p. 66. (Furtwangler & H. C. Ulrichs) *Greek and Roman Sculpture*, translated by Horace Taylor, Pl. XXXV, etc.

⁶⁷ Taking into consideration the extreme rarity of this type I give hereunder a short description of all the varieties I have been able to trace:

B. C. c. after 432.

a, Diphros, beneath which dove flapping wings. *Rev. Lyre*. Cf. Imhoof-Blumer, *Monnaies Grecques*, No. 1, Pl. A. 1 = Berlin, wt. 0.98 gr.; de Luynes, wt. 0.78 (not f.), cf. Garrucci T. C. 10.

B. C. c. 380-345.

b, Diphros and Tau with three dots about it (one each side and one just above vertical stem). *Rev. Diphros*. Cf. Imhoof-Blumer, l. c., No. 3 = Berlin, wt. 0.90 gr. My coll., wt. 0.82

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	<p>gr. (oxidized), ex. Berlin, Dressel, l. c., No. 487. Cf. Santangelo coll. (Naples), Fiorelli, No. 3344.</p> <p>B. C. c. 281-272.</p> <p><i>c</i>, Same types as <i>b</i>, with lustral branch. Cf. London, B. M. C., No. 416, wt. 0.70 gr. (not fine). Nervegna Sale Cat., Pl. III, 383 (now in my coll.) wt. 0.82 gr.</p> <p><i>d</i>, Diphros. <i>Rev. Distaff</i>. Cf. Imhoof-Blumer, l. c., No. 3 = Berlin, wt. 0.81 gr. Garrucci T. C. 9, and my coll., wt. 0.80 gr. (ex. A. J. Evans and R. Jameson colls.).</p> <p>See also Avellino, <i>Bull. Arch. Nap.</i>, T. I, Tav. VIII, 12, and L. Sambon, l. c., p. 243, Nos. 90, 91.</p> <p>⁶⁸ Cf. note 67 <i>c</i>.</p> <p>⁶⁹ Cf. <i>Rev. Num.</i>, 1904, p. 112, and <i>Les Monnaies Grecques coll. Payot</i>, Paris, 1921, p. 39.</p> <p>⁷⁰ Cf. H. Willers, l. c., p. 143, Pl. XII, 1 to 11.</p> <p>⁷¹ Cf. Carelli D, No. 80: <i>Mulier(?) dextera manu entensa</i>, etc. Carelli's very inaccurate engraving (N. I. V. T., CVII, 72) represents a nomos of Type 2 (in fact the Vienna coin Type 2f) and not of Type 3 (cf. R. Rochette, l. c., p. 201).</p> <p>⁷² Cf. R. Rochette, p. 201.</p> <p>⁷³ Cf. R. Rochette, p. 199. The very important ancient collection of Mgr. Capyciolatro, published by Cav. F. M. Avellino (<i>Italiae Veteris Numismata</i>, Naples, 1808) has been incorporated almost as a whole into the splendid Naples Santangelo collection.</p>
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⁷⁴ Cf. M. P. Vlasto, *Num. Chron.*, 1907, p. 282, No. 3, where the coin is wrongly dated c. 470 B. C.

⁷⁵ Cf. Percy Gardner, *A Hist. of Anc. Coins*, pp. 206, 207.

⁷⁶ Since 1907, when I gave a list of the 33 incuse Tarentine nomoi known to date [cf. *Num. Chron.*, 1907, pp. 279-281, and note No. 10] I have been able to add the following: [Type, the Hyakinthian Apollo], *Copenhagen*, wt. 7.20 gr. (very poor and oxidized); *Arolsen*, Prince of Waldeck cabinet, wt. 7.50 gr. (not fine); [Type Phalanthos on dolphin], *Copenhagen*, wt. 7.06 gr. (very poor); *M. P. Vlasto*, wt. 8.06 gr. (brilliant, found at Lecce, 1906); *Sir Herman Weber*, wt. 7.95 gr. (now in my cabinet, see above, note No. 3); *Mr. Cl. Côté*, wt. 7.46 gr. (not fine), ex. Löbbecke (Hirsch XXVI Sale), Mathey and S. Pozzi colls.; *Cambridge*, wt. ? (not fine), McClean coll.; *M. P. Vlasto*, wt. 6.43 gr. (very much worn and poor); *E. T. Newell*, wt. 7.24 gr. (not fine); *E. T. Newell*, wt. 7.78 gr.; *M. P. Vlasto*, wt. 8.00 gr. (see above, note No. 31).

⁷⁷ See above, note No. 59, cf. *Brit. Mus. Cat.*, p. 167, Nos. 52, 53, and *Dressel*, *Berlin Cat.*, p. 235, Nos. 62 and 66-70, etc.

⁷⁸ During Period I, with the exception of the architype No. 1, only the plated oekists of Type No. 1A and Type No. 8 have the legend on both sides.

⁷⁹ Owing to bad striking of all known speci-

mens the extended left hand is obliterated, but the type appears little more than a reproduction of the early scheme as it is seen on the hippocamp nomoi, cf. Evans, Pl. I, 4. Only Hunter specimen *a* shows traces of the legend probably >ΑΡΑΤ which is quite obliterated on *b* and *c*.

⁸⁰ Cf. Macdonald, Hunter Cat., p. 65.

⁸¹ The earliest coin-type struck at Terina, c 480 B. C., exhibits a wingless Victory, ΑΚ<N, surrounded with a wreath of olive, cf. Regling, *Terina*, Taf. II, a, "This type, according to Mr. P. Gardner (Types of Greek Coins, p. 102), suggests that perhaps Pythagoras of Rhegium, in the statue of Victory which he made for the Tegeatae to dedicate at Delphi, may have adhered to the tradition of Calamis, and represented the goddess wingless." This Terinaean type may have suggested to the Tarentines the symbolical wreath.

⁸² Cf. E. A. Gardner, Handbook, I. c., p. 111.

⁸³ Cf. Cicero, *De Signis*, II, *Verr.* IV, 60, 135. Varron, *De ling. Lat.*, V, 31. Tatian, 202, *ad Græcos*, 53.

⁸⁴ Cf. *Neapolis*, Vol. II, Fasc. III, Adolphe Reinach, *Notes Tarentines*, pp. 231-253, and H. Lechat, *Pythagoras de Rhégios*, 1905.

⁸⁵ R. Rochette, I. c., p. 242.

⁸⁶ The late Mr. J. P. Six (cf. *Num. Chron.*, 1898, p. 231), following Busolt (*Griech. Gesch.* III, 1, p. 170), dates the Rhegian series 461-460 B. C.

⁸⁷ Cf. Diod., lib. XI, 52, 3. Pietro Larizza

Rhegium Chalcidense, p. 70. Lenormant, op. cit., p. 28.

⁸⁸ I cannot follow Mr. A. Sambon who considers the olive wreath as commemorating the extension of the olive-oil trade (*Rev. Num.*, 1915, p. 97).

⁸⁹ Cf. R. Rochette, p. 215. M. Lorentz, l. c., pp. 11, 13. Heyne, *Prolus. Acad.*, T. II, p. 221 note d.

⁹⁰ "*Oves Tarentinae, pellitae oves Galaesi.*" Plaut, *Trucul.*, III, 1, 5. Horace *Carm.*, III, Od. V, 5. Plin., H. N., IX, 9 and 30.

⁹¹ On the beautifully preserved oekists, Pl. I, Types 2, 3, 6 and 7. Nos. 4, 6, 8 and 11, where all the details of this symbol are clearly visible, the dots which cover the fleece, placed upon the diphros, strongly recall the early Greek manner of representing the curly fleece of sheep on gems and coins.

⁹² Cf. Athen., V, 4. The κλισμός is a seat on which one sat leaning a little backwards as the word signifies.

⁹³ Although unnoticed by R. Rochette, this nomos is the very same one engraved in Carelli T. CVI, 51, with its module, as usual, much enlarged.

⁹⁴ Carelli describes the short distaff, held in the oekists right hand, as a murex shell which also is figured on his engraving. It is, however, possible that, considering the unusually small size of the distaff, this object is really intended to

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	<p>represent here a spindle twined with wool, the purport of which is the same.</p> <p>⁹⁵ As read by Dr. Hirsch in the G. Philipsen XV Sale catalogue, No. 385.</p> <p>⁹⁶ Cf. R. Rochette, p. 183, Pl. I, 9 = Garrucci T. XCVII, 22 = L. Sambon, l. c., Pl. XVII, 6. The inscription of obverse eroded by oxidation on the original represented in Fig. 1 is ΖΑΡΑΤ</p> <p>⁹⁷ Formerly in the Avellino coll., cf. Riccio, <i>Repertorio</i>, 1852, p. 53, No. 8.</p> <p>⁹⁸ Cf. F. Imhoof-Blumer, <i>Nymphen und Chariten</i>, <i>Rev. Int. d'Arch. Num.</i>, Athens, 1908, p. 13, No. 14 and note No. 1.</p> <p>⁹⁹ This nomos, I am informed, was found in Calabria, 1920, with four incuse not well preserved staters of Croton and a fine double-relief stater of Caulonia struck after circa 480 B. C.</p> <p>¹⁰⁰ K. Regling, <i>Sammlung Warren</i>, 1906, p. 4, No. 19, Pl. I, 19.</p> <p>¹⁰¹ M. P. Vlasto, <i>Rev. Num.</i>, 1904, Pl. V, No. 6 (now in the C. Côte coll.), and Babelon, <i>Traité</i>, p. 1390, cut No. 2046.</p> <p>¹⁰² Cf. Babelon, <i>Traité</i>, p. 1378.</p> <p>¹⁰³ On the presumably unique nomos in my cabinet (see Type 12) which is from the same rev. die as Type No. 11 the curve of the necklace is plainly visible outside to left of the neck and shoulder of the seated oekist. It cannot be the representation of his collar-bone as on Types No. 14 and 14A, see Pl. III.</p> <p>¹⁰⁴ Evans, <i>op. cit.</i>, p. 3, note 5, cf. Head,</p>
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Coins of the Ancients, Pl. 7, No. 7. Dressel, Berlin Cat., Nos. 65, 66.

¹⁰⁵ Carelli, N. I. V. T., CVIII, 81. B. M. C., p. 172, Nos. 89, 90. Dressel, l. c., p. 285, No. 369, Taf. XIV, 206.

¹⁰⁶ Cf. E. Babelon, *Traité*, p. 1391.

¹⁰⁷ Cf. Evans, Per. II, Type L. 2, from the same dies as the horsemen figured by L. Forrer, p. 234, No. 6 (*Notes sur les Signatures des Graveurs sur les Monnaies Grecques*), Brussels, 1906. Cf. *Rev. Belge de Num.*, 1905-6.

¹⁰⁸ Many Tarentine horsemen are restruck over Corinthian staters, cf. Berlin Cat., p. 252, No. 155, Taf. XII, 184 (cf. *Zeit. f. Num.*, IV, p. 330) No. 157, p. 257, No. 192, Taf. XIII, 191. In my cabinet I have the following "horsemen" similarly restruck. Evans, Per. III, Type L, 1 and 3, Type M, 1, Type O, 3; Per. IV, Type A, 1, Type B, 1, Type D, 1, I have also a "hippocamp" nomos, from same dies as F. S. Benson Sale Cat., Pl. I, No. 21, restruck on an early Corinthian Pegasos as C. Oman, *Corolla*, Pl. XI, No. III, 4. This nomos may have been struck circa 460 B. C.

¹⁰⁹ Cf. Evans, p. 36. M. P. Vlasto, *Rev. Int. d'Arch. Num.*, 1895, Pl. Z, 4. Cf. Hirsch XXIX Sale, Pl. I, 16, two other nomoi in my collection.

¹¹⁰ Cf. *Notizie degli Scavi*, 1880, p. 190, pl. 5. The square form \diamond is also found on a fragment dedicatory inscription in very archaic letters,

conjointly with the Σ of the normal form and not of the early standing form \leq discovered at Taranto, during the excavations made by Prof. Viola near the ancient sanctuary of Persephone on the elevated plateau called Pizzone, cf. *Memorie della v. Accad. dei Lincei*, XI, 1883, p. 296.

¹¹¹ Cf. B. M. C., 50. Carelli, N. I. V. T., CV, 43. Macdonald, Hunter, No. 6 = C. Combe, T. 55, IV. Jameson Cat., Pl. IV, 87. *Rev. Num.*, 1904, Pl. I, No. 7, p. 114. S. Benson Cat., Pl. I, No. 21. *Neapolis*, l. c., 1913 Tav. V, 17, etc. All these "hippocamp" nomoi are among the latest issued.

¹¹² With the exception of the weight of oekist No. 1 noted, while Mr. E. Gabrici, the courteous and obliging curator of the Palermo Museum, had under his care the Naples collection, I have unfortunately been unable to obtain the weights of all the other oekists of that very important cabinet, no scales being now available.

¹¹³ l. c., p. 205.

¹¹⁴ The dolphin-rider is represented receiving a small dolphin in a similar manner on several later horsemen, cf. Evans, Per. III, Type L, Per. VI, Type D, 2 and 3, also on a gold half stater (B. M. Cat., p. 162, No. 16) and *Num. Chron.*, 1907, Pl. X, No. 14. The dolphin is the real hieroglyph of Tarentum or abbreviation of its well known *παράσημον*.

¹¹⁵ Cf. L. Sambon, l. c., p. 249.

¹¹⁶ On an extremely rare silver diobol (wt. 1.20

gr.) in the de Luynes collection, struck c. 500 B. C. of the following type: Cockle-shell, cable border. *Rev.* Cray fish between \triangleright and \vdash . Border of radiating lines. Cf. Nervegna Sale Cat., lot 273, and Naples, Fiorelli, No. 1907. The specimen of this type in my cabinet weighs 1.21 gr. For T | A divided by the type cf. the later trihemibols as B. M. C., No. 387, Garucci Tav. C. 26.

¹¹⁷ Sir Arthur Evans mentions the cicada (cf. p. 178) as a moneyer's symbol on a late Tarentine horseman, and its fractions, of reduced weight, of his Type B, 2, Per. VIII. However on two particularly brilliant examples of this type, in my cabinet, the insect is certainly not a cicada but a bee or possibly a fly (cf. B. M. C., Italy, p. 180, No. 153, and Carelli, N. I. V. T., CXI, 147, associated to the eponymous magistrate named Zopyros).

¹¹⁸ Cf. Ad. Reinach, l. c., p. 245.

¹¹⁹ Cf. W. Aly, *Der Kretische Apollonkult*, 1909, and *Delphinios* in *Klio*, 1912.

¹²⁰ The site of the shrine of Poseidon has been identified by Signor Luigi Viola within the limits of the ancient acropolis of Tarentum, cf. *Memorie della v. Accademia dei Lincei*, IX, 493.

¹²¹ I cannot share Sir Arthur Evans' opinion that the earliest horsemen show any great analogy with the wreathed oekists — which all present on their obverse Phalanthos riding the dolphin, with both hands extended. This version is never

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	<p>met with on the earliest horsemen, though always associated with the latest issues exhibiting on their reverse the hippocamp or youthful head. (Cf. Evans, Pl. I, 6. R. Rochette, Pl. I, 5.)</p> <p>¹²² Cf. E. Babelon's <i>Traité</i>, p. 1380. M. P. Vlasto, <i>Rev. Num.</i>, 1904, p. 149 and Pl. V, 1. <i>Rev. Belge de Num.</i>, 1899, p. 145, No. 1 and Pl. VI, 1.</p> <p>¹²³ Cf. L. Sambon, l. c., p. 35.</p> <p>¹²⁴ Anaxagoras, circa 470 B. C., enunciated the first law of linear perspective, the radiate retreating of parallels to the point of view. Cf. J. Six, <i>Jour. of Hell. Stud.</i>, Vol. XL, Part II, 1920, p. 180.</p> <p>¹²⁵ AR 23/25 mm., weight 8.00 gr. Cf. M. P. Vlasto, <i>Rev. Int. d'Arch. Num.</i>, 1898, Pl. Z, 3. A similar obverse die, with the same border and mintmark Γ, represented both in the Evans and the Rome-Vatican collections, is coupled with a somewhat later reverse die on which the rider does not hold the whip but the horse's reins with both hands. This new reverse is represented in my cabinet coupled with two other obverse dies as Evans, Pl. II, 3.</p> <p>¹²⁶ Sir Arthur Evans gives the description of only four types in his first Period. I have been able to bring together in my cabinet 19 horsemen all struck before circa 430 B. C., most of which are from hitherto unpublished dies.</p> <p>¹²⁷ Coins of early Velian types have been frequently found in the neighborhood of Taranto.</p>
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¹²⁸ On the brilliant example of this extremely rare early horseman in the Munich cabinet the letter O of the inscription on the reverse is off the flan.

¹²⁹ Cf. A. Michaelis *Alt Parthenon*, Leipzig, 1870, Pl. 14, IV, 24, 25.

¹³⁰ Cf. above note No. 24.

¹³¹ Cf. *Num. Chron.*, 1907, Pl. X, No. 7, and F. Imhoof-Blumer & Keller, *Tier und Pflanzenbilder*, VIII, 30.

¹³² The only other known example of this type, with the square pellet on the reverse, is in the splendid collection of Mr. R. Jameson, cf. *Jameson Cat.*, Pl. V, No. 93, cf. hereafter note No. 140.

¹³³ Cf. R. Rochette, *Mémoires de Numismatique et d'Antiquité, Observations sur le type des Monnaies de Caulonia*, pp. 35-37. *Diodor Sic*, IV, 24. *Lycophron*, V, 1005.

¹³⁴ Cf. A. J. Evans, *Jour. of Hell. Stud.*, Vol. VII, *Recent Discoveries of Tarentine Terra-Cotta*, p. 5.

¹³⁵ *Cicalone* means the *chatterer* and recalls the noisy *cicada* (in Italian *cicala*) symbol on type No. 161, apparently corroborating my possibly overbold explanation of this curious symbol.

¹³⁶ *Polyb. Hist.*, VIII, 30, 3.

¹³⁷ Cf. Prof. Andrea Martini, *Guida di Taranto*, p. 6.

¹³⁸ Cf. R. Rochette, l. c., p. 209, note No. 3.

¹³⁹ H. Dressel, l. c., p. 240, under Nos. 84, 85.

¹⁴⁰ Only two examples are known of this first

issue, one in the Berlin Museum (ex. Imhoof-Blumer coll.), cf. *Nymph. und Char.*, l. c., Pl. I, 13 and *Tier und Pflanz.*, l. c., Taf. VIII, 29, the other, with the reverse curiously double struck, in my collection (ex. Hirsch Sales, XXX, 102, and XXXIV, 20, ex. Garrucci coll.). For other recuttings of dies cf. Sir Arthur J. Evans, *Num. Chron.*, Vol. XII, 1912, Pl. IV, 21 and 22, and Imhoof-Blumer, *Monnaies Grecques*, p. 16, No. 14.

¹⁴¹ Cf. *Num. Chron.*, Vol. XII, 1912, 28.

¹⁴² Cf. Garrucci Tav. C. 33. Cat. Jameson, Pl. VII, 132 (my coll., wt. 0.62 gr.). Garrucci Tav. C. 12 and 34 (my coll., wt. 0.63 gr.). Cf. Minervini, *Oss.*, Tav. V, 4a.

¹⁴³ Cf. Weicker, *Seelenvogel*, p. 26.

¹⁴⁴ For a presumed unique Tarentine third of nomos cf. note No. 34.

¹⁴⁵ The only specimen of this type in the Naples cabinet is Fiorelli's No. 1805, a very beautiful example of type No. 37*h*, on which the dove's head is somewhat indistinct being almost on the edge of the flan. The wings of the bird have the vague appearance of a small net which therefore excuses Avellino's mistake.

¹⁴⁶ Cf. Evans, *Num. Chron.*, l. c., 1912, Pl. III, 4 and 7.

¹⁴⁷ Cf. Lenormant, l. c., p. 97. The learned author considers the cat(?) as a magistrate's symbol or signet. This view is however quite inadmissible there being always an evident con-

nection between the panther's cub and the seated figure.

¹⁴⁸ Cf. Keller, O., *Zur Geschichte der Katze im altertums — Mitteil des Kais. deut. Arch. Inst. Röm. Abtheil*, 1908, pp. 40-70.

¹⁴⁹ Cf. *Collection de Monnaies Antiques Grande Grèce et Sicile*, Paris, 19/12/1907, Sale Cat., p. 21, No. 13. The preface of this catalogue by Dr. A. Sambon is a highly valuable contribution on the artistic evolution of Magna Græcia's and Sicily's coinage.

¹⁵⁰ Cf. Imhoof & Keller, *Tier und Pflanzenbilder*, Taf. I, 26.

¹⁵¹ Cf. *Die Künstlernischriften auf Griechischen Münzen*, pp. 15-43. A. J. Evans, op. cit., p. 119. L. Forrer, l. c., pp. 70-72.

¹⁵² Cf. Boettiger, *Hercules in Bivio*, pp. 42-44.

¹⁵³ Cf. R. Rochette, op. cit., p. 217, notes 1 and 2. R. Rochette first pointed out the real meaning of these two symbols which have been taken for a bulbous root, cuttle-fish (Carelli D. No. 73) or a ball (Avellino, *Ital. Vet. Num.*, p. 77, *pilam ut videtur*). The spindle of wool, held out to the panther's cub, has also been described as a murex, or even a bunch of grapes by R. Rochette (cf. p. 232) and others. The panther's cub has also at times been described not only as a cat but also as a dog owing to the poor condition of most of the examples then at hand. It may be noted here that on an Attic fourth century sepulchral relief near Rome,

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	<p>in the Grotta Ferrata monastery, a heroized departed is represented seated to left on a diphros while a panther's cub is reclining beneath his seat (cf. <i>Mon. dall' Instit.</i>, 1855, Tav. 15). Cf. also Clarac, <i>Musée de Sculpture</i>, Pl. 682, No. 1596, Pl. 686, No. 1611, Pl. 688, Nos. 1616, 1619.</p> <p>¹⁵⁴ Cf. Furtwangler, l. c., p. 15 and Pl. VI, No. 18.</p> <p>¹⁵⁵ Head, <i>Hist. Num.</i>,² fig. No. 63, p. 113.</p> <p>¹⁵⁶ Cf. E. J. Seltman, <i>Num. Chron.</i>, 1897, l. c., Pl. VIII, 15.</p> <p>¹⁵⁷ Cf. <i>Burlington Fine Arts Club Exhib. Cat.</i>, l. c., Pl. XCIII, H. 33.</p> <p>¹⁵⁸ Cf. Furtwangler, l. c. Pl. V.</p> <p>¹⁵⁹ The right hand is empty and does not hold a wreath, cf. R. Rochette, p. 208, Pl. III, No. 28.</p> <p>¹⁶⁰ Cf. R. Rochette, p. 207, Pl. III, 26.</p> <p>¹⁶¹ On all the following horseman of early fine style, rightly ascribed to Period II, the horseman type still figures on the <i>reverse die</i>. Type D, 1, 2, 3; Type E, 4.</p>
	NUMISMATIC NOTES

235

236



1. a



1.



3. b



4. a

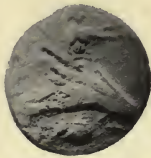


7A.





ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ



8. a



8. b



9. a



9B.



10. d



10A.





9. b



9. c



9A.



11. a

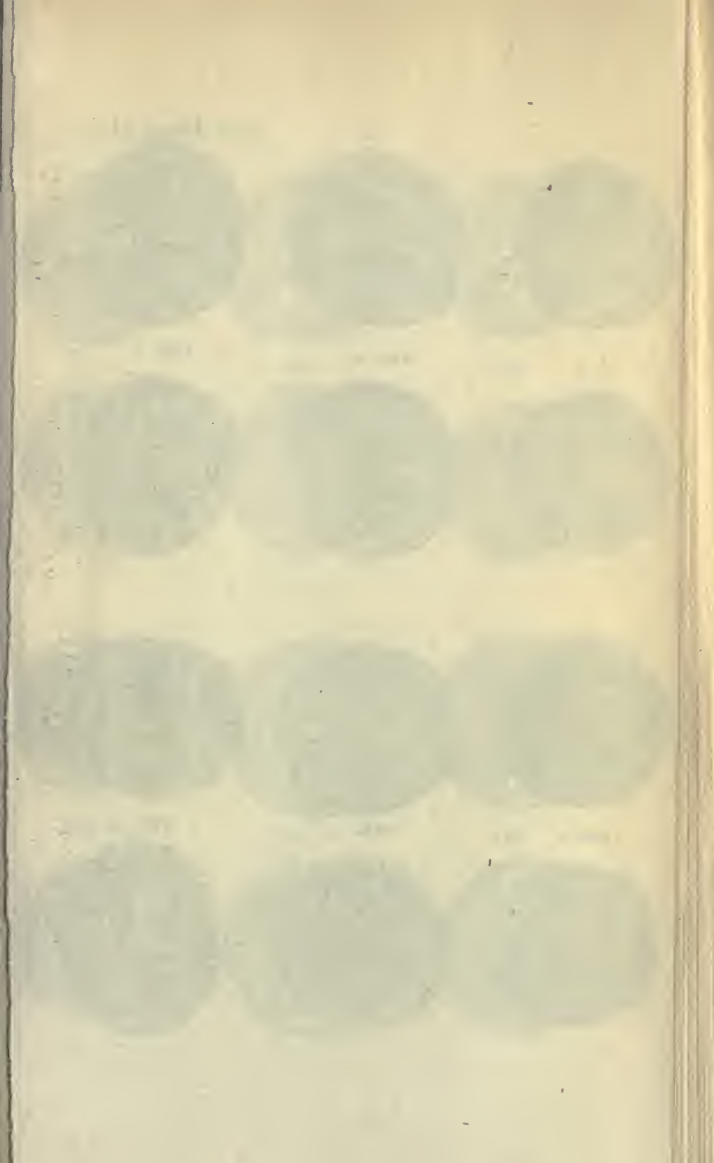


11. b



12.







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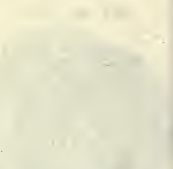
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ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ



14 H. *a*



14 I. *a*



14 I. *b*



14 M. *a*



14 N. *a*



14 N. *b*





ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ



16H. e



16I. a



16I. b



18.



19. a



20. a



Plate VI



17. *a*



17A. *a*



17A. *b*



20A.

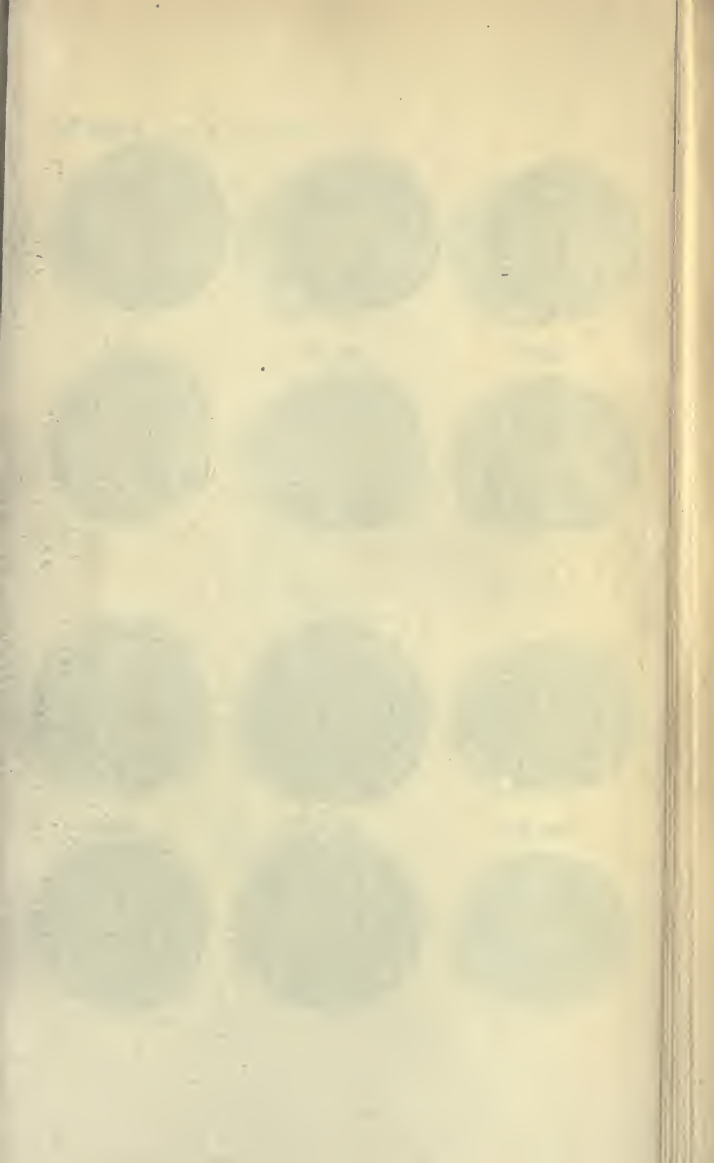


20 B. *a*



21. *a*







ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ



26. *a*



27. *a*



28.



33. *i*



34. *a*



34. *b*



Plate VIII



29.



33. *a*



33. *b*



35.



36.



37. *a*







ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ



40. c



41. a



41. b



44.



45. a



45. b



Plate X



42. *a*



43. *a*



43A.



46. *a*



47.



47A.



ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ



53A.



53B. α



53C. α



55A. α



56. α



56A. α





53D.



55. a



55. b



57. a

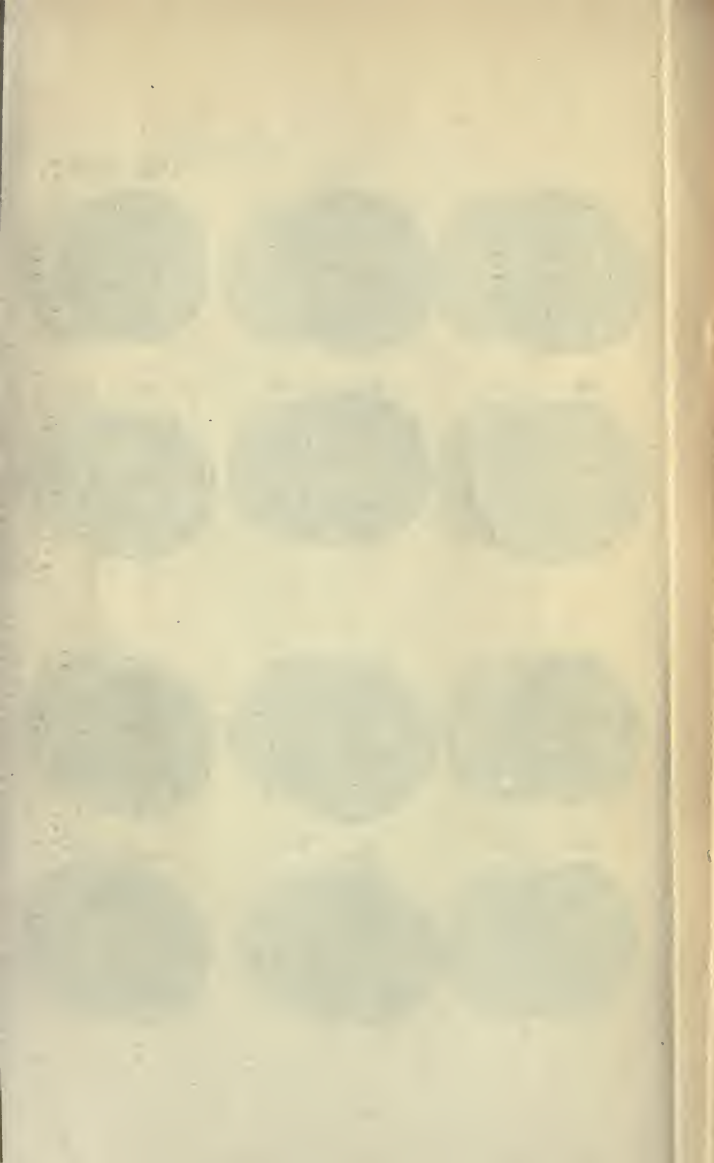


57. b



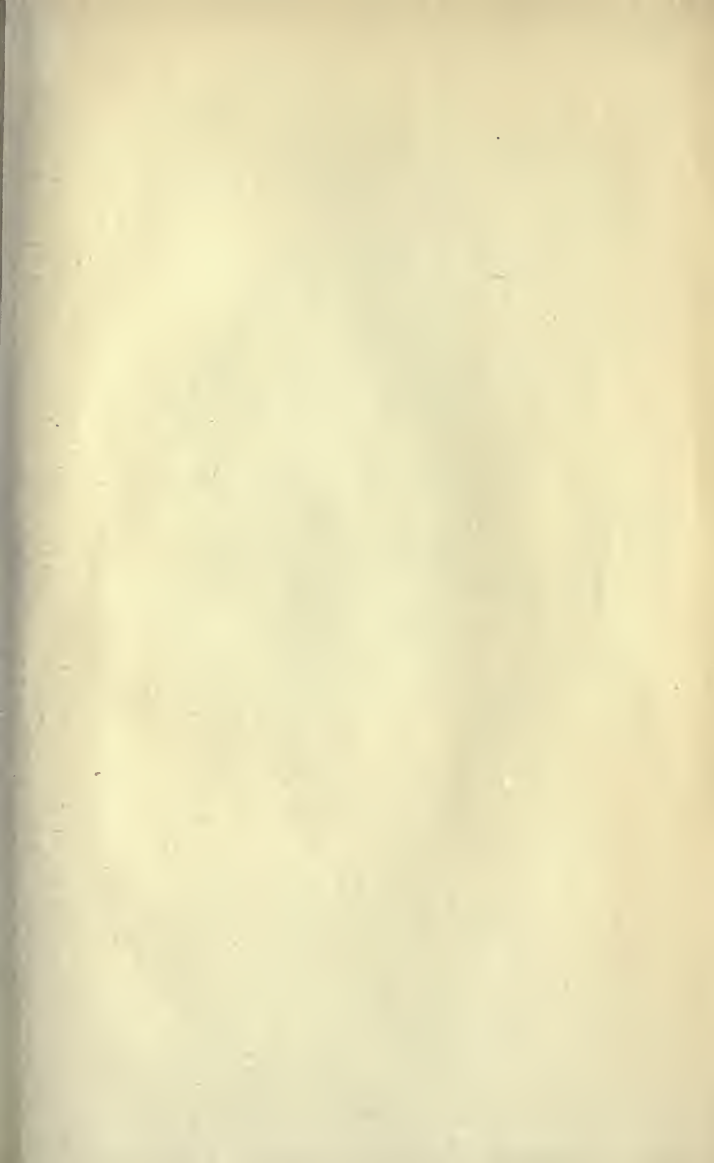
57. c

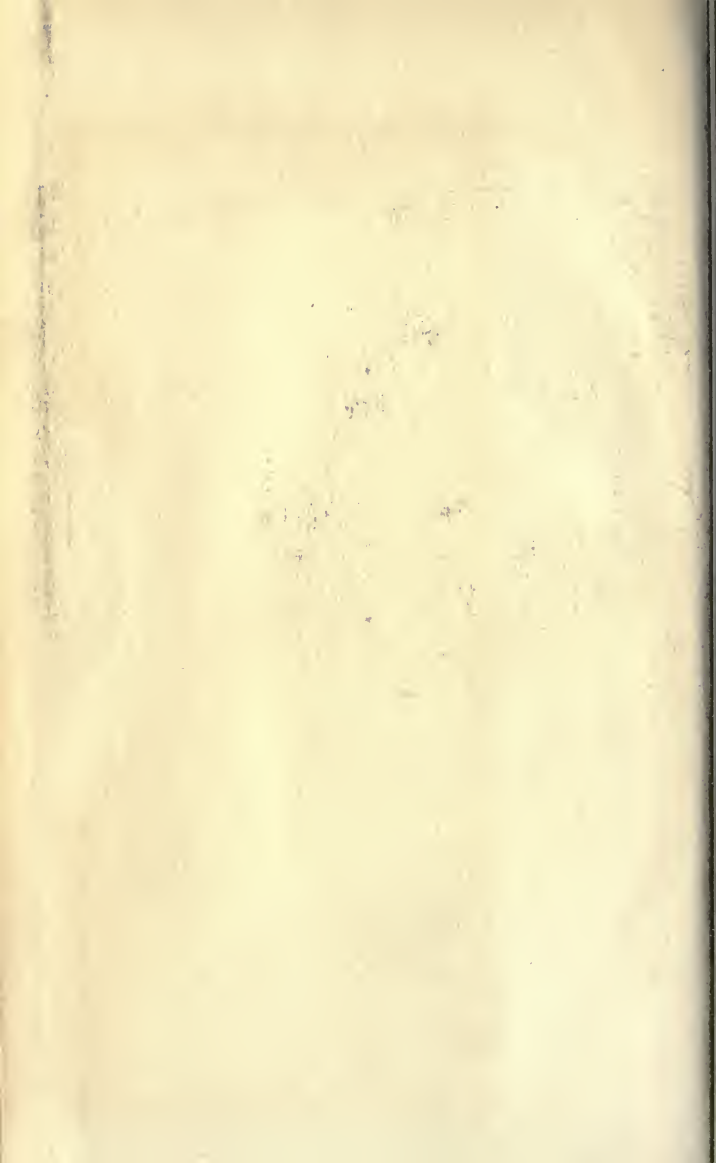












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